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Opportunity and Responsibility of Southern Electric Companies.

THE recent article in the MANUFACTURERS RECORD by Preston S. Arkwright, president of the Georgia Power Company, in which he expressed the thought that the public utility companies should spend more than \$10,000,000 a year for advertising, which is only about one-half of one per cent of their aggregate annual earnings, has called forth an editorial in the Montgomery, Ala., Journal, using the occasion of Mr. Arkwright's article to criticize some of the publicity activities of electric companies.

No one for a moment questions the fact that many electric companies made a very serious mistake when they undertook to enlist special writers and educators in their campaign of publicity without letting the public know that these articles were written as a part of the electric power campaign. Judging by such articles as came to the attention of this paper we rather imagine they all contained information of value to the public; but when through Congressional investigation it was developed that they were written for the power companies and paid for by them, the public naturally resented having information of this kind furnished in that form. The information was doubtless correct in most cases, if not in all; but the method of presenting it was unwise.

We take it for granted that every power company which was interested in that campaign fully realizes that a mistake was made, for that is not the way to win public interest.

That phase of publicity, however, has passed away. It was one phase which many years ago was adopted by a good many organizations, by railroads and others, which sought to influence public favor without a direct appeal to the public over the name of the officers or the company. Probably the last time that such a plan is utilized for many years is the campaign which unfortunately was foisted upon the electric companies. That plan we doubt not has long since been abandoned, and now the companies are facing the question of direct publicity through display advertising in the newspapers and magazines of the land.

Here is a real field for their work. Here is a forum through which they can reach the public and state their case with the full knowledge of the readers that they are being given facts over the name of responsible officers. That policy is now being pursued by a number of railroads as well as by power companies. It is a wise one. It creates confidence on the part of the public, and confidence is what every business organization needs to cultivate.

It is true, as Mr. Arkwright said, that the greater the con-

sumption of electric light or power, the better able will the companies be to carry on their plan of development work and extend their service and give "more universal service and economical rates." In his statement Mr. Arkwright also said, speaking for the electric companies, "we want the public steadily to benefit as a result of better treatment."

We believe that this is the honest view of every manager of electric power companies and kindred activities. They know full well that unless great organizations give the public the benefit of lower rates or service in proportion to the amount of investment or the cost of production, that such enterprises will carry in themselves the seed of destruction.

Many years ago the railroads made the mistake of ignoring the public and seeking through legislation to accomplish their ends. In sowing the wind they reaped the whirlwind of destruction. Fortunately the power companies in their mistaken plan did not carry it on to such an extent, or for such length of time as the railroads did. The spirit of the railroads of early days was voiced not only by Vanderbilt, but by other railroad presidents, when he said "the public be damned." That is directly contrary to the spirit of today in railroads and in public utility work. Mr. McAdoo coined the expression "The public be pleased," and that is the only way to deal with the public; and in pleasing the public every corporation is strengthening its own influence, adding to the volume of good will, and making possible the securing of necessary capital for vast extensions which are always a requisite.

The electric power companies throughout the South find it almost impossible to carry out their extension plans rapidly enough to meet the demand for power and light. They fully merit the hearty appreciation of this fact on the part of power and light consumers. In a sense they are missionaries for the advancement of every line of human progress throughout the South. They make possible the development of industry and the creation of employment. They stretch their lines out through cities, towns and country districts, giving a new opportunity to thousands who were never before able to use electric light and power. The extension of their lines is, therefore, beneficial to agriculture.

These extensions will bring about a decentralization of industry to the very great advantage of the country districts and the smaller towns of the South. In olden days when steam was the only source of power except a flowing stream here and there, the establishment of industries in small communities was difficult and generally impossible. But now electric light and power make it feasible to establish small industries which give employment to local people, create a market for diversified products of the farm, and thus

carry the prosperity which so largely has centered in the city, into the country districts.

It behooves the people of the South, therefore, to give every possible encouragement to the expansion of the facilities of the public utility companies, and recognize that they are really missionaries for the advancement of the material and the educational life of the country.

Well did Mr. Arkwright say that these companies ought to spend more than \$10,000,000 a year in publicity work. That is a small amount compared with their annual income and with the necessity of keeping the public fully advised as to the work they are doing. In the South alone hundreds of millions of dollars must annually be spent for years to come in the extension of electric light and power companies. Their extension means an increase in productive power and larger opportunities for industrial development.

These companies, therefore, instead of the tendency to lessen their publicity, should follow Mr. Arkwright's suggestion and undertake a broad campaign, with the kind of advertisements which command attention and give the people a chance to study what the companies are doing, and the good results of their work upon the South. In this campaign they can quicken the energy of the Southern people; they can draw many millions of capital from other sections into the establishment of new industries, and every new industry means a larger market for the products of the farm.

Here is a field in which electric power companies and all other great business organizations in the South have an opportunity to achieve great things for the country and for themselves; and when they are achieving great things for the country they are doing great things for their own prosperity. Here is action and re-action. The prosperity of one begets the prosperity of the other.

We trust that Mr. Arkwright's good advice will be heeded by every great business organization in the South, and pre-eminently so by the electric companies and the railroads.

CUBA SEEKING TO DESTROY THE AMERICAN SUGAR INDUSTRY.

CUBA is endeavoring to induce the United States to reduce the tariff on sugar, on the specious plea that by doing so it would largely increase the purchase by Cuba of American goods; the rate would be lowered gradually over a period of about 9½ years until finally wiped out altogether; and to that it adds the suggestion of a restriction by the American Government of the amount of sugar imported into the United States free of duty from the Philippines to 300,000 tons a year.

A dispatch sent out from Washington in the name of the American Chamber of Commerce of Cuba says:

"The proposal, regarded as revolutionary in official circles here, contemplates the drafting and ratification of a new commercial treaty with Cuba to replace the existing treaty of 1903. With that part of the proposal the ways and means committee has only a general interest; in the proposals anent the sugar tariff the committee is deeply interested inasmuch as it is now engaged in laying the groundwork for tariff revision at the forthcoming special session of Congress."

The suggestion that comes from the Cuban Government should be promptly squelched; and on the contrary the tariff on sugar should be increased to a point which will enable a larger development of the cane and beet sugar industry in the United States. It is far more important that we develop our own sugar interests, and thus increase the buying power of American farmers, than that we lessen the duty on Cuban sugar in the vain hope of increasing the demand in Cuba for American products. Against this proposal of Cuba, the sugar growing interests and all others concerned as to the development of the industries of this country should vigorously protest.

GOOD HIGHWAYS AND TOURIST TRAVEL REVOLUTIONIZING AMERICA.

THE tourist business has become one of the outstanding features of American life. It is developing with such an amazing rapidity that no one can set a limit to its growth. In former years the great mass of American people took a brief two weeks vacation in the summer. Comparatively few thought of a winter vacation as equal in importance to a summer vacation. Yet only recently President Green of the American Federation of Labor made the suggestion that the working people of the country should take a two weeks vacation in winter, just as much as in summer, and there is no doubt that to a large extent this will come about with growing rapidity in the next few years.

The working man loves the automobile and outdoor life, and likes to take his family off on a trip, just as does the man of wealth and leisure. Perhaps he needs the outing even more. But men of wealth, and their number is not only becoming legion but many times legion, with their love of the outdoors and golf are rushing away from the cold of the North and West into the South in the winter, and rushing from one part of the country all the year round to some other part, to enjoy the fun of speeding over the highways or seeing new things, and coming in contact with new conditions and new people. Prejudice of one section against another is being wiped out by this tourist travel. Men are coming to learn each other as they never did before. They are beginning to see face to face, and eye to eye. Northern and Western men are beginning to understand that the people of the South are just as vigorous in mind and body as they are. They are beginning to see that the resources of the South are far and away superior to those of any other portion of America. Southern men are beginning to realize more fully than ever before the good qualities in Northern and Western men. They are extending to them a welcome and friendship which did not exist in former years. Old prejudices are passing away; new friendships are being made every day; a broader spirit of patriotism and nationalism is developing.

Men are learning to think in terms of nationwide concern, outside of the narrow confines of political activities or affiliations in the past.

Wherever good highways are built there tourist travel develops with remarkable rapidity. Maryland, Virginia and North Carolina, with their superb highways, have made it possible for thousands of Northern tourists to motor through those states, stop at their resort places, and pass on down further South. But Georgia and South Carolina, laggard in highway building, have been the bane of the motorist's life. Their failure to follow the example of Virginia and North Carolina, to the same extent of building improved highways, has kept thousands of people from passing through those states and others from stopping in them.

The recent completion of a good highway from Savannah to Augusta is being heralded by the people of the latter city with great enthusiasm, and money is to be spent liberally to advertise this new route. The highway along the Atlantic coast through the state of Georgia to Jacksonville is one of the great highway enterprises of the day.

Florida was one of the first states in the South to fully appreciate the financial value of good highways, and the fact that there are now estimated to be 300,000 tourists in that state, mostly people of considerable financial ability, is an illustration of what good roads can do. The highways of Florida are crowded with cars from Canada, California, Colorado, and all the Western and far Western states, and from many Southern states, to an extent never before known. These people come through Virginia, the Carolinas, Georgia and Alabama, Tennessee and Kentucky. In their travel they see new things that they had never understood about the

South. They see great opportunities for business, for a large proportion of these tourists are business men.

There has been a good tourist business also in other parts of the South, all the way from Maryland out to Texas. But all that has been seen in this line is small as compared with the development which will take place in the next few years. Tourist travel is a pigmy today in contrast with what it will be in five or ten years. Highways must be built through every state which has been backward in their construction. Existing highways must be broadened and many new ones built. Traffic congestion is already in evidence in many parts of the South as elsewhere.

Broad thinking is necessary when state and county officials undertake to visualize what is coming to pass in the way of tourist development and the influence it will have on the progress and prosperity of every state which builds such highways to take care of such traffic.

While Florida is having its largest winter tourist business, other parts of the South have been equally fortunate. Reports to the MANUFACTURERS RECORD show that in the Southern Pines and Pinehurst region, on down through Aiken to Augusta, the hotels have been crowded to their limit. Thomas J. Hamilton, editor of the Augusta Chronicle, wrote to this paper that Augusta and Aiken were having a great season "and the future of the resort business here is limited only to the number of hotels that we provide, as all three of our big hotels are crowded and we hope to see another resort hotel started during this year."

Porter Whaley, secretary of the Chamber of Commerce of San Antonio, reports a very heavy tourist business in Texas, with over 40,000 tourists in San Antonio during the winter.

In the early part of the season, heavy rains somewhat interfered with the tourist business along the Gulf coast of Mississippi but when the rains were over the tourist travel rapidly increased. That section is bound to become one of the outstanding tourist centers of the country.

It may indeed be said that "America Is on Wheels," and every automobile built and every increase of wealth in the country in the final analysis means the enlargement of opportunities for visiting the tourist resorts of the South during the winter season. Many people from the North and the West have been in the South this winter for the first time, and their enthusiasm about this section will result in bringing forth a still larger number of people who have never yet had the opportunity of knowing what it means, for health and recreation alike, to spend a winter in the South.

A WISE DECISION BY PRESIDENT HOOVER.

PRESIDENT HOOVER has announced that he will make a few public addresses during his term of office, a wise decision; for all his great administrative qualities will be required during the next four years to carry out plans for the betterment of the varied interests of the country. It is well, also, that Mr. Hoover is surrounding himself with assistants and secretaries of pronounced ability who can relieve him of some of the details in working out the many problems he will have to face. He will need, and should have, the hearty co-operation of the people of the country in finding a solution for the problems connected with unemployment, with the expansion of business, the enlarged prosperity of the nation, the development of waterways, the betterment of farm conditions and the building of the Nicaragua Canal, which we believe must claim his encouragement in the not distant future.

For all these and for the new problems that will arise from day to day, his mental and physical resources should be conserved.

MERGERS AND CHAIN STORES.

THERE is no magic in mergers any more than there is any monopoly menace in them. There is no more reason to fear them than to believe in them. They have to take their chances and share the vicissitudes of all business enterprise."

Such is the conclusion reached by Virgil Jordan, chief economist of the National Industrial Conference Board, in an article written for the MANUFACTURERS RECORD and published in this issue. Mr. Jordan has had an opportunity of making a comprehensive study of mergers in former years and is in touch with the situation of the present; he reviews the whole trend of mergers and points out wherein enthusiastic believers in such combinations may labor under misconceptions as to magical powers to be realized, but adds:

"This pipe dream is most radiant in boom periods, when banker, investment broker and business man get together to build their air castles of consolidation."

There are mergers, and mergers—mergers that are good, and mergers that are bad; mergers born of economic conditions, and mergers created for the express purpose of enabling promoters to make a profit out of bringing independent organizations together. In a boom period, such as that of the present, the temptation to create mergers in order to float the stocks of the consolidated company is very strong with many promoters and banking houses.

In the early days when there was a rush for the organization of mergers, or so-called trusts, one of the greatest of all the operators in bringing together a giant merger said to the writer: "The trust which is not based on the idea of lessening the cost of production and of giving the public lower prices has in itself the seed of death." His view was that combinations could not live when based simply on the idea of controlling prices and of larger profits as a result.

Mr. Jordan's discussion of the subject leads very largely to the same conclusion. In these days when the air is full of reports and rumors of mergers, when every daily paper tells of some new combination, a careful diagnosis of the whole situation, such as Mr. Jordan has given under the head of "The Merger Myth," will be of interest to all business people.

Some problems brought about by chain stores yet remain to be solved. Many arguments are put forth in behalf of chain stores, but one of the serious questions connected with their operation is the large extent to which they help to concentrate the money of the country in the financial centers of New York and Chicago and other big cities from which chain stores are controlled. Bankers throughout the country tell of the demand from the officers of chain stores to send money to New York as rapidly as it is deposited in the local banks. This forces the money away from the smaller towns of the country and concentrates it too heavily in New York. There it is loaned to a considerable extent in one way and another for stock speculation in order to get the high rate of interest prevailing on call money and thus it intensifies speculative activities. The chain store operators have a power over the purchase of goods, farm products and everything else they handle, far greater than that possessed by the individual storekeeper.

Recently one of the big wholesale grocers of the South said to the writer that he was closing up his business, throwing 20 or 30 clerks out of employment, because he could buy from a grocery chain store foodstuffs for his family at a lower price than he could buy for his wholesale grocery business, although he was doing a business of some millions of dollars a year.

Mr. Jordan does not touch this chain store feature of the day, except very briefly. It is a new problem which is commanding much attention, for there is a tendency, very pronounced at present, toward the organization of chain store systems and the establishment of new chain stores all over the country. Thousands of chain stores are being established

in cities and towns and even in country villages. This phase of business life presents an economic situation of very serious importance. Whether its ultimate outcome will be for good or evil for the country remains to be seen; but the disposition of these chain store organizations to have their money sent every day from local banks to the New York central office must in some way be combated, or else the power of New York's vast accumulation of money will be still further increased to the disadvantage of the country.

INDUSTRY'S RELATION TO AGRICULTURE IN THE SOUTH.

PEOPLE in other parts of the country, and to a great extent Southern people themselves, still view the South as largely agricultural. This erroneous impression that the South is principally an agricultural region persists because the people as a whole do not have the facts. They are uninformed rather than misinformed. It is of sufficient importance further to emphasize certain facts as to the relative position of industry in the general development of the Southern states, although the true situation has been iterated and reiterated by the MANUFACTURERS RECORD, and through its annual Blue Book of Southern Progress.

Southern people generally need to develop an industrial state of mind and industrial outlook. Many realize what is now taking place in the expansion and diversification of Southern manufacturing and some people have caught a vision of the future possibilities of this section. In a measure, business leaders outside the South have a better understanding of the situation than those who are in the South but who are too close to view the economic picture as a whole.

While giving due credit to agriculture and its basic importance, the industrial situation should be more thoroughly understood and emphasis should be placed on the fact that the total annual value of manufactured products in the South is nearly double that of the products of its farms. The figures are \$10,500,000,000 for Southern manufactures annually as compared with approximately \$5,500,000,000 for Southern agriculture.

In any discussion of this subject one often hears the statement: "Yes, I know the South is a great cotton manufacturing section," as if that observation were intended to convey the assurance of familiarity with the industrial development of the South. The statement is true enough, since the South is now producing over 60 per cent of the cotton goods output of the country, but it must be remembered that the annual output of Southern cotton mills, great as this really is, represents less than 10 per cent of the aggregate value of all the manufactured products of this section. When its mineral industry is considered—and the Southern states produce about one-third of the country's total annual output—agriculture is several times outranked by manufactured and mineral output.

Some 25 years ago, when the South began to take prominence in iron and steel manufacturing, practically all the pig iron made was shipped to other sections, while today probably 85 per cent of Southern-produced pig iron is utilized in Southern foundry and machine shops, thus giving a fair picture of the diversification and expansion of manufacturing in this section. The South is the chief cotton manufacturing center of the country; it is becoming a great rayon-producing center, with some of the largest plants in the world; it is making rapid progress in the manufacture of hosiery; it is producing more than one-third of the country's lumber; it is a great furniture manufacturing section; it has a chemical and fertilizer manufacturing output of over \$1,000,000,000 annually; it is a heavy producer of boots and shoes, aluminum and copper, and it is expanding its ceramic industry, having some of the largest known clay resources of the country; it is producing 62 per cent of the country's petroleum; over 40

per cent of the country's coal; practically all of its sulphur and phosphate rock, bauxite, fuller's earth, and a great variety of many other minerals, and is building up a paper-making industry and other lines of diversified manufacturing which are commanding the attention of the business world.

The South is forging rapidly to the front as a producer of nursery products. From Tyler, Texas, it is claimed that more roses and rosebush cuttings are shipped than from any other place in the world. The sale of rose cuttings for the season will bring to the growers of that section a quarter of a million dollars. Immense quantities of bulbs and flowers are shipped from Florida and South Carolina all over the United States, enabling the South to become the greatest bulb production center of the country.

These are but a few of the diversified agricultural activities upon which the South is embarking; in addition there are fruit and trucking and nut crops, dairying, poultry-raising and bee-keeping. A greater variety of crops are now being produced in the South than elsewhere in the United States. Although it still produces practically all of the cotton, peanuts and rice, and about one-third of the corn of the country, to mention some of the more prominent staple crops, there is also the beginning of a canning and packing industry, and the manufacture on a large scale of the by-products of sugar cane; these must be added to the textile, lumbering, ceramics, iron and steel and miscellaneous manufacturing industries.

Such facts need to be absorbed by the Southern people, in order to afford a broader outlook on the South's future and make possible when meeting outsiders a more intelligent and enthusiastic emphasis on the South's position in relation to the country's amazing growth.

Of course, the larger and more diversified the industrial development of the South, the greater the distribution of earnings and wealth. And all of this is making for more substantial home markets and the further utilization of and demand for manufactured products of every kind, giving stability and profit to those engaged in farming and industry.

These and a thousand and one other facts of vital interest to the South are covered in the 1929 edition of the Blue Book of Southern Progress now in course of preparation.

The Inheritance Tax.

[From Charlotte, N. C., Observer.]

THE MANUFACTURERS RECORD is making call for the next session of Congress to repeal the inheritance tax under the system established to "get even" with Florida, a system which forced all states to levy this tax, whether or not they might so desire. As a matter of course, individual states ought to be left free to levy or not to levy a tax on inheritances. Just how the present situation developed is explained by the RECORD. The law now in force was brought about through the fear, during the great boom in Florida, that the wealth of the country was going to be centered in that particular state; and some other states, jealous of the progress of Florida and its freedom from an inheritance tax, as provided in its Constitution by the vote of the people, undertook a bolshevistic, communistic campaign to get the Federal Government to pass an inheritance tax with the remarkable proviso that 80 per cent collected in each state having an inheritance tax should be paid back to the state. "That Congress should have yielded to the radical spirit of the day to such an extent," remarks the MANUFACTURERS RECORD, "is one of the mysteries of Congressional activities. For such a measure there is no possible excuse."

The RECORD further argues, and sensibly, that an inheritance tax may be justifiable in case of war or of absolute necessity on the part of the Federal Government. It may be justified in individual states if their people feel that this is a wise way of collecting revenue. But the Federal inheritance tax as it now stands is of such a character that it can well be classed as one of the most vicious measures ever passed by Congress. Its intent was not to raise revenue for the Federal Government, because it specifically agrees to give back 80 per cent of all the tax thus raised to the states in which the tax is paid, if they also impose an inheritance tax.

The Merger Myth.

By VIRGIL JORDAN, Chief Economist, National Industrial Conference Board.

Along with the general spirit of economic "whoopie" and business "boom-boom," the past five years have brought another period of merger enthusiasm. The contagion of corporate consolidation has swept the business world again. In 1928 nearly 400 such business unions were consummated, and in January of this year alone 48 were recorded. The press is filled daily with accounts of projected and accomplished mergers, alongside the lamentations of independent business men in industry and trade about profitless prosperity and jeremiads launched by trade organization secretaries against price-cutting. The public pictures the hard-pressed independent enterpriser pacing the floor of nights in Hamlet-like soliloquy: To merge, or not to merge; that is the question. Whether it is better for the stockholder to suffer the slings and arrows of cut-throat competition and take arms against a sea of purchasing agents, or by consolidating end all.

In many ways this is an old story in American business history. There are fashions and crazes in business organization as in everything else, and they tend to repeat themselves. The history of American business organization seems to be one of successive cycles of trust-making and trust-busting. The 20 years following the Civil War, with their speculative booms based on rapid industrial and railroad expansion, brought with them an epidemic of mergers and pools, culminating in the Interstate Commerce Act and the Sherman law. The years of rising prices and of increased speculative activity in the "new era" from 1900 to 1910 were another period of merger enthusiasm, perhaps greater than that of today, just as the rate of industrial and speculative growth was greater then than it has been in the "new era" since 1921.

The consolidation movement in these periods was of course different in some respects from that of the past few years. The legal atmosphere was quite different. Up to 1890 there were practically no restraints upon mergers other than those of the common law doctrine of conspiracy applied in the state jurisdictions. From then till the time of the Northern Securities case in 1904 the atmosphere was considered to be friendly or unimportant; and from 1904 to 1911 it was uncertain and pessimistic. After the American Tobacco and Standard Oil decisions of the Supreme Court in 1911, the benign liberality of the rule of reason promised and granted new freedom for merger promoters.

What is more important is that the fundamental economic forces beneath these earlier merger movements were different. In the days before the turn of the century the consolidation movement was merely a phase of the tendency toward large-scale production, which was more rapid and pronounced before 1900 than it has been since. The opening of the West by the rapid building of railroads and the spread of wire communication created a wider natural market for goods than the small-scale local factories could meet. This expansion brought with it increased competition in local markets which was first met in rather rough and primitive ways which the law was soon forced to curb. After 1900 the merger movement represented primarily an effort to meet the pressure of competition in national markets by cutting production costs and securing other economies through larger scale of operation. The movement today is in part the result of a desire to effect economies in distribution and to stabilize or regularize the market, and in part a reflection of increased financial and speculative influence in industrial organization. Mergers of recent years are chiefly in the marketing or distributing field, or are designed to consolidate productive and marketing operations in a number of collateral or allied fields of manufacturing; and they are usually built up gradually

and in a piece-meal fashion rather than quickly and in a spectacular way.

Thus, from the economic point of view, the merger movement has made a complete about-face in the past two generations. Whereas it began as a part of the effort to bring productive capacity *up to* a rapidly increased market demand, it has ended in an effort to bring an excessive productive power *down to* a relatively inelastic demand.

These successive waves of merger enthusiasm, however, have certain common characteristics. In the first place, they have all been associated with periods of security speculation and have reflected the tendency of such periods to over-estimate and over-capitalize expected or assumed industrial gains. The belief in the superior efficiency and inexhaustible profitableness of big concerns, in their infallible ability to control the market, stabilize prices and profits, as well as the belief in their menace to society, are all but part of the mythology or love of fairy tales which accompanies every "new era," such as that in which we have fancied ourselves in recent years. These economic apocalypses recur regularly at least once in every generation, and among the other visions which their St. Johns in Wall Street see at such times is that of the complete consolidation of everything in gigantic concerns that absorb all business and issue an endless series of stock dividends. Bull markets with their rapid and large turnover of hopes and their rising prices of promises are favorable soil for vast projects of business expansion. The past few years have been exceptionally favorable in this respect because of the wide diffusion of the habit of security buying, the enlarged reservoir of credit provided by the Federal Reserve system, the public confidence and friendliness toward large corporations, and other factors which were absent in earlier periods. In fact, the merger movement is so strong and so spectacular today chiefly because the widespread ignorance of fundamental business conditions and the fantastic security market based upon this ignorance have offered an exceptional opportunity to unload contingent securities in the form of common stock on the general public.

Another characteristic of merger periods is the tendency to misinterpret the significance of mere size for efficiency and economy of operation and to ignore the principle of diminishing returns. The idea then takes unusually strong hold upon the public mind and the business community that if anything is good, a hundred times as much is more than a hundred times as good; and especially that if you can make and sell a thousand units of something at a profit you should be able to sell a million units at more than a hundred times the profit. Belief in the exceptional economies of mere mass production has been more characteristic of the period since the war than it was of earlier merger periods, but it is remarkable that it should be accepted with so little question by the business world in a period when the problems of excess capacity and the difficulties of distribution have been so acute and so widely discussed. The fact that mergers in recent years have been so largely in the distributive fields, however, is some indication that these difficulties are being recognized.

More serious is the tendency to lose sight of the fact that the results or gains of productive efficiency, or even of distributive economy, tend always in the end to be diffused rather than to accrue altogether or even mainly to the benefit of those who make them. The existence of patent laws is the simplest indication of the fact that the advantage of industrial improvements cannot normally be restricted to those who are responsible for them, unless the state intervenes to insure the inventor or promoter some special share of the benefits. This is commonly forgotten when mergers

are launched with the idea of achieving great economies in production or distribution, the rewards of which are to be reaped exclusively or chiefly by the shareholder or promoter. In these days of intense competition, of over-production and price-cutting, it is astonishing that business men, who are loudest in their complaints in this respect, should have any such idea; but apparently hope springs eternal in the investor's breast, and the promoter knows how to oil the springs.

Finally, merger enthusiasts usually labor under these misconceptions because they imagine that consolidations have some magical power to realize the dream of controlling the market and soothing the feverish intensity of competition. The hope of fixing prices and easing the competitive struggle is a will-o-the-wisp business men pursue at all times, but this pipe-dream is most radiant in boom periods when banker, investment broker and business man get together to build their air-castles of consolidation. If a large enough one can be built, they feel, it will be able to stabilize the market and dominate the price, putting the little fellows to flight and in time capturing and holding the field for itself. When these visions dissolve into the thin cold air of reality, business gets even or finds satisfaction in cussing the government for putting obstacles in its way. When merger enthusiasm is at its height, the outcry against the straitjacket restrictions of the anti-trust laws is most strident, as it is today, both from those who would merge and realize this dream of market control and those who have merged and awakened from it.

The plain fact is, of course, that the notion that any particular form of business organization has any necessary relation to business success, profitability, efficiency or stability, is a myth, like many other similar fairy tales with which the business world likes to coddle or frighten itself. The reasons for this go very deep—almost, one might say, into the biology of economic institutions. If the process of natural selection through the survival of the fittest in the struggle for existence could be suspended it would be possible to pick a type of hog best adapted to yield bacon, or a human most suitable, say, for the moving or talking pictures, standardize them and repeat them endlessly without variation. So, too, in the economic sphere, if we were to suspend the process of competition altogether, as Soviet Russia has tried to do, we could select some form of business organization in each industry best suited to produce the goods or pay dividends, declare it the standard, call it the Perfect-torg, and, behold, it would be, for there wouldn't be any other.

But this will not work where men are free in any measure to use their wits in any way they please for their own advantage, and where the nature of the competitive struggle and the problems to be met vary from day to day and from place to place. In this fluid and flexible state of industrial society the mere merger of independent concerns into larger units has not afforded in any field an infallible solution of the problems and difficulties of business. The pressure toward consolidations and integration in industry as a means for securing increased stability and economy has been and continues to be strong; and in many cases such consolidation has been an altogether natural evolution. But it has nowhere provided a royal road to success. In by no means every case has it meant even economy and efficiency. In almost no instance has it given permanent relief from the rigors of the competitive struggle, and there is no evidence that it has in any way altered the necessity or provided a substitute for alert, intelligent aggressive and progressive management. All too often, on the contrary, the blind faith of promoters and investors in the virtue and power of the mere size and scope of a merger has resulted in nothing but a great unwieldy structure of capital floating like a sick whale in a sea of watered stock, devoid of real energy and life, and drifting blindly with the current till it is cast up on the rocks of failure by the relentless tides of business progress. The record of every merger, like that of every other kind of busi-

ness enterprise, is a reflection of the capacity and energy of its management and not of its origin, structure and size.

It should be self-evident that there is no intrinsic virtue in size. The whole is not more than the sum of its parts, and a merger cannot contain or produce more than is in it. A great consolidation has merely the capacity to do large things by virtue of its greater resources; but these avail nothing if they are not used, and those of many a smaller concern avail more if they are better used. Every business enterprise, certainly those in corporate form, is a merger of interests and resources of individuals. That in this way they use them more effectively than they could as individuals is not due merely to the fact that they join their forces, but to the fact that they do so under leadership and management capable of using these resources more effectively than they could themselves. The same obvious principle applies to the merger of independent corporate interests.

It is, of course, difficult to distinguish the experience or effects of mergers from those of mere large scale enterprise. Consolidations differ from other large scale concerns chiefly in the way they have become large. To an extent, the weaknesses of consolidations are the same as those of all large scale business. They lie in the economic limits that exist in each field of production to increase in the scale of operations, limits arising chiefly from growing overhead costs and lack of flexibility of adjustment to changing market conditions. Some large-scale individual concerns, like the Ford Company, have proven incapable of flexible adjustment to market change without enormous expense and loss, while some consolidations, like General Motors, have exhibited and profited by a superior flexibility of this kind. Generally, however, the larger and more elaborate the business structure, whether made by merger or otherwise, the greater the danger of rigidity and increasing cost in adjusting itself to the market.

Nevertheless there are doubtless some inherent differences between the strength and fortunes of a business that has grown from within and one that has grown from without, or has started big by the merger of small enterprises. The artificially enlarged business seems, indeed, to be prone to a certain weakness that is not so marked in the concern that has grown large out of its own resources and strength. At least the fact that an enterprise has become large without accretion is generally a sign of good management. It is well known, too, that a common and crucial weakness in mergers arises out of the difficulty of disposing of the managerial deadwood of the concerns absorbed—officers who frequently have a kind of vested or family right in the business and have to be bought off or somehow provided for. Particularly in recent years mergers have been engineered by banking interests who have noted the success of some concern under the management of some energetic and resourceful individual and who have sought to capitalize his ability and erect on it a larger business structure embracing several other and perhaps moribund concerns of which they may hold the paper. Sometimes this process has been successful, but more often it has spread too thin the individual managerial ability on which it was based and burdened it too greatly and too suddenly, whereas in the original key concern it might have grown naturally to meet larger responsibility.

Whatever the differences may be between the natural and the artificial large-scale enterprise, the record of the latter type as a factor in American business is by now fairly clear. The studies of consolidations made by Prof. Dewing of Harvard years ago, and more recently by the National Industrial Conference Board, point definitely to several closely related conclusions, which can here merely be summarized without the elaborate and complex evidence on which they rest.

First, mergers have generally been no more successful, that is, profitable, from the business or financial point of view than any other type of business concern, whether measured by the trend of earnings, by the ratio of earnings to changing

capitalization, or by the reflection of profits in security prices, over a long period of time.

Second, mergers have generally achieved, as compared with independent concerns, considerable reductions in costs through economies in production gained through standardization and other technological improvements and made possible by larger resources and expenditures for research.

Third, mergers have tended generally to hold down prices. Products of industries in which consolidations have been dominant have risen relatively less in price than have those in industries where consolidations have been absent. This may be due in part to other factors than that of consolidation, but there is quite conclusive evidence at least that consolidations have not generally succeeded in raising prices or even in controlling price fluctuations. If we leave out of consideration the period of price inflation since 1914, and consider the period of rapidly and steadily rising prices from 1896 to 1914, when consolidations took place in large numbers, it appears not only that the products of the consolidation industries did not rise, but that they actually declined. Whether this be the effect of the consolidation movement of this period or its cause cannot be more decisively determined than the old question of the priority of chicken or egg; but if falling prices was a stimulus to consolidation, the latter cannot be said to have been a brilliant success in remedying the evil it sought to meet.

Taken together, these conclusions imply several things of considerable importance from the point of view of private business and public policy. They mean that there is no magic in mergers any more than there is any monopoly menace in them. There is no more reason to fear them than to believe in them. They have to take their chances and share the vicissitudes of all business enterprise. Possibly promoters have profited by them for a while, especially if they were quick to turn them adrift after launching them; but the gains of their efficiency and economy have in the end accrued chiefly to the consumer. By and large, indeed, they have shown themselves merely agencies or instruments by which the benefits of industrial progress have been diffused or distributed over the community. So far as business opportunity is concerned their achievement proves nothing about the possibilities of independent enterprise and initiative, for they have in no way altered the essential force and value of the competitive process.

On all these counts, therefore, the government may well let them alone. The growing liberality of public policy toward mergers, indeed, is merely a recognition of these facts. The most effective check upon them today, and the only one needed, is the economic forces which set natural limits to their power for evil and enforce automatically the realization and sharing of their capacity for good. The anti-trust act was a product of the earliest period of merger recklessness in business organization and conduct. It reflected the popular fear of the menace of monopoly, of large-scale business, business consolidation and business co-operation. So far as mere big business, whether born of mergers or not, is concerned those laws have largely outlived their purpose. Save possibly in regard to such new developments as the power companies and the chain store, the fear of them has disappeared. But though the myth of mergers as a menace has faded largely away, the myth of mergers as magic moneymakers still remains and probably will linger to be reborn in every stock market boom of every "new era" that every new generation of business brings.

Dismal Swamp Canal Purchase Approved.

Norfolk, Va.—The purchase of the Lake Drummond Canal for use as a part of the inland waterway, Norfolk to Beaufort, S. C., at a cost of \$499,000, has been approved by the War Department, Washington, the purchase having been authorized by the rivers and harbors act of 1925. The canal, generally known as the Dismal Swamp Canal, is approximately 22.5 miles long, extending from Deep Creek, an arm of the Elizabeth River, in Norfolk County, Va., to the Pasquotank River in Camden County, North Carolina.

\$100,000 INSTALLATION FOR MAKING DRY ICE.

Corporation Plans Operations at Jacksonville and Atlanta.

Jacksonville, Fla.—Plans are being made by the Dry Ice Corporation of America, New York, August Heckscher, chairman of the Board, for the installation of machinery in the Commodore Point plant here of the Liquid Carbonic Corp., for making dry ice for commercial distribution throughout Florida. An expenditure of more than \$100,000 will be made for machinery, it is said, to include new boilers and compressors, and it is expected the plant will be in production by May 15. The corporation will establish its Florida headquarters in this city, according to A. V. O'Connor, who represents the Dry Ice Corp. in the Southeast. In addition to Mr. Heckscher, other officers of the company include Robert R. Rust, president, and P. F. Lavender, vice-president in charge of sales, while Francis S. Mason, Jacksonville, is associated with the organization. Southern plants of the Dry Ice Corp. will be at Jacksonville and Atlanta, according to present plans, as some equipment of the Liquid Carbonic Corp. plants are used, it is explained, where available, inasmuch as both corporations use carbon dioxide.

Dry ice is solidified carbon dioxide, made when liquid carbon dioxide is converted into a solid by a series of expansions producing a fine, white snow which is compressed by hydraulic pressure into solid cubes 10 by 10 inches and weighing approximately 40 pounds. The temperature of the product is said to be 109.3 degrees below zero, Fahrenheit. Carbon dioxide, it is explained, is the gas which bubbles from carbonated beverages and is odorless, tasteless, harmless, chemically inert and free from moisture. In its use as a refrigerant, it passes from a gaseous to a solid state as it takes on heat.

Grove Park Inn Sold to Hotel Operator of Iowa.

Asheville, N. C.—Grove Park Inn, considered among the world's finest resorts, which was purchased about a year ago by General T. Edward Hambleton and associates of Baltimore and Washington, has been sold to J. Reed Lane, of Davenport, Iowa, who operates a number of hotels in the Middle West, including the Blackhawk and the Davenport at Davenport; the Fort Des Moines and Savery at Des Moines, Iowa; the St. Paul at St. Paul, Minn.; the Hartford at Mason City, Iowa, and others. Mr. Lane will be president of the new Grove Park Inn organization, and F. Roger Miller, now vice-president of Grove Park Inn, Inc., will remain in that capacity with the new company. George E. Allen, who becomes vice-president and managing director, will have general supervision of the hotel, while Jack Horner, who comes from the Royal Hawaiian, Honolulu, will be the resident manager.

\$1,000,000 Goodyear Rubber Reclamation Plant.

General contract for constructing the \$1,000,000 rubber reclamation plant at Gadsden, Ala., for the Goodyear Tire & Rubber Co., Akron, Ohio, recently announced, has been awarded to A. K. Adams & Co., Atlanta, and steel contract to the McClintic-Marshall Co., Pittsburgh, Pa. The plant building will consist of three sections—one, 60 by 100 feet, one story; the second section, 80 by 100 feet, three stories, and the third, 40 by 100 feet, two stories—all of brick and steel construction, except the one-story section which will be of saw-tooth construction. One elevator of 3500 pounds capacity will be installed in the three-story section. The plant will have a capacity of 25 tons of reclaimed rubber daily and most of the output will be shipped to the Goodyear mechanical goods plant at Akron. A. H. Zleske is the engineer in charge of construction.

Southern Demand for Tariff Protection Voiced at New Orleans.

By THOMAS EWING DABNEY, New Orleans, La.

Farm relief by protecting American farmers from the competition of European and Asiatic labor, working on a day scale as low, in some places, as 16 cents; farm relief through the same measures that have made the manufacturing industry so prosperous, and through an application of the principles to which American Labor also has committed itself in urging the justice and the necessity of restricted immigration—that is the program for the South's and the Nation's prosperity as laid down March 25 by the Louisiana division of the Southern Tariff Association in session at New Orleans.

The meeting was held under the auspices of the State Department of Agriculture, with Commissioner Harry D. Wilson presiding. Mr. Wilson is a dirt farmer and he regards claims that the farm situation will be met by reduction of farm-costs as "an illusion as ghastly as anything yet put forward." A 25 percent reduction in all expenses incurred by the farmer in production—wages, interest, taxes, rent, repairs and supplies—would be only \$267 a farm, or \$1.84 an acre, Mr. Wilson declared.

A hundred of the leading bankers, manufacturers, business men and farmers of Louisiana and Mississippi attended the meeting, and adopted resolutions calling for a national tariff that "treats every product of the soil, the factory, the mine and the sea, alike." It was stated by many that this was the largest and most enthusiastic tariff meeting ever held in New Orleans. The resolutions recite that "a crisis exists in American agriculture, for which no relief is possible or permanent without adequate tariff duty;" urge that duties be levied upon imports from the Philippines, and declare that the Tariff Commission should be given greater authority. Furthermore, they provide for Washington representation, and a budget to carry out the program for tariff advancement.

Cotton, sugar, rice, chemicals, pecans—it was clearly pointed out by representatives of these industries how much wealth Louisiana and the South are losing because of the lack of adequate tariff protection. Former Governor John M. Parker, a dirt farmer, struck the keynote of the session when he said that "agriculture and industry go hand in hand" and that "both should be encouraged to the fullest extent." United States Senator Ransdell of Louisiana, speaking on jute, which is on the free list and therefore knocks the market from about 1,000,000 bales of cotton a year, showed how the South is suffering from competing with India's 16-cent-a-day labor.

"The foreign trade policy of the United States needs overhauling," said Mr. Wilson, and told how, during the fiscal year ending June 30, 1926, the United States imported \$3,500,000,000 of raw and manufactured animal and vegetable products—that is, farm products. Only about \$1,000,000,000 of this included those products that cannot be raised in the United States, such as coffee, tea, cocoa, rubber, etc.

David Pipes, president of the American Sugar Cane League, and Ernest Burguières, president of the Domestic Sugar Producers Association, showed how essential a sugar tariff is, not only to the Louisiana sugar industry, which is just struggling back upon its feet, but also to the beet sugar industry of the West. All branches of the domestic sugar industry are united, they said. They want a 3 cent tariff against the world, and a 2.40 tariff against Cuba. They also urge that Philippine production be restricted, for, they

said, the Philippines "can play the mischief with the sugar industry of the United States, as with the vegetable oil industry."

Edward Woodall of Dallas, representing the Cottonseed Crushers Association, told how the cotton oil industry is facing extinction as a result of the copra and cocoa nut oil imports. Similar arguments were made by F. B. Wise of New Orleans, manager of the Louisiana Rice Growers Association; J. E. Byram of Alexandria, president of the Interstate Cottonseed Crushers Association; Clarence Ellerbe of Shreveport, Harry Kapp of Baton Rouge, George Long of New Orleans, president of the Louisiana Manufacturers Association; G. R. Broussard of Abbeville and J. C. Barry of Lafayette, of the Louisiana Bankers Association; R. H. Polack of New Orleans, on chemicals and minerals; Scott Thompson of the New Orleans cement plant; M. Hull of Baton Rouge, on pecans; Representative Kemp and J. C. Holton, commissioner of agriculture of Mississippi.

A letter from Representative H. P. Fulmer of South Carolina said, in part:

"The attitude of our Southern representatives in the past . . . has been absolutely out of line with the best interest of the South . . . They seem to get a lot of glory out of standing on the floor of the House and cursing out the Republicans and the tariff. In the meantime, we have the highest tariff rates to-day that we've ever had . . . It is my belief that the South will eventually be fighting for protection, while the folks who are enjoying the benefits thereof will be the enemy to their old-time policy . . . These representatives don't seem to understand the tremendous losses to the producers of cotton because of the use of jute and excess tare. In the second place, it appears that most of them have a jute manufacturing concern or distributor in their district who seems to have more influence over them than the suffering, unorganized producers."

A resolution of thanks to the MANUFACTURERS RECORD for its work in behalf of a tariff for Southern production was unanimously adopted. A telegram from Richard H. Edmonds, editor of the MANUFACTURERS RECORD, to John H. Kirby, president of the Southern Tariff Association, was read as follows:

"For the first time in its history, the South has the opportunity of sharing with equal measure the benefits of a protective tariff system and, by reason of the platform of the two parties, Southern people can now, without violating the fealty which they have heretofore held to the Democratic party, demand a national protective tariff.

"There is some danger, however, that, unless the South is united for a tariff campaign for a well rounded protective system, it may fail to secure the benefits which are within its grasp. Many manufacturers, long accustomed to free raw materials, are insisting on a continuation of the free importation of their raw materials, though demanding protection for their finished product. There is really no such thing as raw material when once labor has touched it. The clays, the manganese and all the wide varieties of mineral resources of the South should be given the benefit of a full protective tariff.

"Because many manufacturers in time past have demanded free raw materials, but protection on their product, there has been created throughout the country a belief on the part of millions of people that the tariff is a selfish scheme for the benefit of the manufacturers. To blot out this feeling and make the American people realize that a tariff is for the good of all, there should be a readiness on the part of the manufacturers to encourage protective duties on the so-called raw materials.

"Among the manufactured articles now on the free list is cement. Preeminently should this receive protection against foreign cement made by labor paid hardly one fourth of what

American labor is paid. Agriculture should be a prime consideration in the making of the new tariff; but, the manufacturing interests of the South in their widest ramification should like cement to be given an adequate protection.

"You cannot, I think, too strongly stress the need of a well rounded tariff for Southern manufacturers. Egypt, with its low rate of wages, has a duty on cotton. Surely, American cotton growers should be protected.

"Peanuts, soya beans and kindred oil producing nuts should receive ample protection, though even now the manufacturers consuming these products in the making of soap, paints and other things are vigorously fighting against a duty on these farm products.

"I hold that we should have a protective tariff for all interests, or no tariff at all. Any other basis for a tariff creates a spirit of selfishness. It is in the power of the Southern Tariff Association, by awaking the people of the whole South and of all classes to this situation, to bring about a well rounded tariff protecting agriculture, minerals, raw materials and the finished product, and thus maintaining our high standard of wages upon which our civilization and prosperity are based."

Mr. Kirby in a night address after the conference had brought in its resolutions, analyzed the political history of the United States and showed how the father of the protection philosophy was James Madison, a Virginian; and how hard times had followed every time the tariff was put down. "We want a tariff so that Southern producers can have the opportunity of competing in American markets for all American trade," said Mr. Kirby.

Similar meetings are to be held in Mississippi, Tennessee, Arkansas, Alabama, Georgia, North Carolina, South Carolina and Virginia. The Mississippi meeting is to be held in Jackson, April 3, and the Tennessee meeting at Memphis, April 4. Dates for the other meetings have not yet been set.

The gist of the Resolutions adopted follows:

"We recommend that Congress adopt a national tariff policy of protection that treats every product of the soil, the factory, the mine and the sea alike. We are willing to apply the same tariff policy to the products we buy as we ask for the products we sell.

"Recognizing that permanent farm relief can only be secured through a satisfactory market for products of the farm and ranch, we recommend that Congress, in formulating tariff legislation, take into consideration measures to promote the following economic policies:

"That the right to levy a duty upon imports from the Philippine Islands be reaffirmed.

"We recognize the administrative provisions of the Tariff measure of equal, if not greater, importance with that of the rate structure, especially as relates to Philippine imports and to the flexible provisions and rate-making powers and regulations transmitted to the President and to the Tariff Commission, and that consideration be given the application of the dumping provision of the Tariff Act.

"We recognize the factory as a market house for the farm and ranch, and that permanent farm relief can only be secured through a satisfactory domestic market.

"We petition Congress to restore, encourage and maintain the domestic market to the American manufacturer, which in many instances has been taken from him or made insecure by free trade or low tariff duties.

"We direct the attention of Congress to the mineral resources of the Nation, of which there are many in the South that can be opened up and developed by adequate tariff duties.

"We are fully convinced that a crisis exists in American agriculture for which no relief is possible or permanent without adequate tariff duty."

Plans for \$3,850,000 St. Louis Building.

Plans are being completed by Manske & Bartling, Inc., architects of St. Louis, for a 35-story office building to be erected in that city at a cost of \$3,850,000, for the Builders Investment Co., care of G. H. Walker & Co., St. Louis. The structure will be 193.2 by 100.2 feet, of concrete, marble and terrazzo construction, with Barrett roof and foundations on caissons. W. J. Knight & Co., St. Louis, are the engineers.

A Strong Argument for Our Protective Tariff.

The American wage earner's economic status not only remains considerably higher than that of his fellows in foreign countries, but the gap between the American and foreign purchasing power of wages, as measured in buying food and shelter in their own countries, has noticeably widened during the past three years, according to the National Industrial Conference Board of New York.

An analysis of foreign wages and their purchasing power made by the Conference Board on the basis of data collected by the International Labor Office of the League of Nations at Geneva, discloses that the American wage earner in corresponding trades, in October, 1928, received "real wages," that is wage rates with a purchasing power measured by the prices of food and rent, ranging from one-third to four times higher than workmen in European countries and about one-fifth higher than in Canada.

The greatest change in the relative position of foreign to American "real wages" during the four year period 1925-1928 occurred in Denmark and Canada, the American wage earner's relative position improving considerably over that of workers in these two countries. The Canadian worker's "real wage" in October, 1928, was 80 per cent that of the American as against 88 per cent in October, 1925; that of the Danish worker was 57 per cent that of the American in October, 1928, as against 64 per cent three years prior.

"Real wages" in Great Britain and Sweden showed no change in relation to the American real wage, the British real wage being 53 per cent and the Swedish 40 per cent of the American in both years under comparison. German real wages also closely held their relative position, being 34 per cent of the American in October, 1928, as against 35 per cent in 1925.

In the case of each country the data were collected in the chief or a representative industrial city. Below are given the relative position of the purchasing power of foreign wages in the form of index numbers; the Philadelphia worker's real wage, selected as representative of the American wage, is given as 100 for corresponding months in the three years 1925, 1927 and 1928.

	1925	1927	1928
Philadelphia, U. S.	100	100	100
Ottawa, Canada	88	85	80
Copenhagen, Denmark	64	55	57
Dublin, Irish Free State.....	...	58	57
London, Great Britain.....	53	58	53
Stockholm, Sweden	46	43	46
Amsterdam, Netherlands	46	44	44
Berlin, Germany	35	32	34
Brussels, Belgium	31	28	29
Prague, Czechoslovakia	31	28	26
Vienna, Austria	28	25	25
Warsaw, Poland	28	22	23
Rome, Italy	27	27	22

\$1,700,000 Building Planned for St. Louis.

St. Louis, Mo.—Plans are being prepared by Jesse L. Bowling & Isadore Shank, Inc., local architects, for a 23-story building to be erected at Fourteenth and Olive streets, for the City College of Law and Finance, Prof. A. Ebersole, president. The structure will be 70 by 104 feet, to provide space for five shops on the first floor and 96,000 square feet of floor space for offices, in addition to three floors for the use of the college. It will be of steel and reinforced concrete construction, with Bedford stone exterior. Four high speed elevators will be installed.

\$2,000,000 Window Glass Plant for Oklahoma.

L. J. McDonald, secretary of the Chamber of Commerce, of Henryetta, Okla., advises that the Pittsburgh Plate Glass Co., Pittsburgh, Pa., plans to build a \$2,000,000 window glass plant at Henryetta. Options have been obtained by the company, it is said, on 200 dwellings at Henryetta as homes for employees of the plant.

Legalized Smuggling Encouraged by Irregular and False Invoices of Foreign Merchandise.

A SUGGESTED METHOD OF CORRECTION.

By WILBUR F. WAKEMAN, Former U. S. Appraiser of Merchandise, District of New York.

Number 3.

"The ambition of foreign manufacturers and producers in every country of the world is to get under or through the American tariff wall of duties to take advantage of the American market," said an importer to me recently. In this ambition, foreign interests have the skillful co-operation of paid American agents, who operate continuously not only in evading existing laws but also in the preparation of new laws, as evidenced by their presence at and participation in the Congressional tariff hearings recently held at Washington.

Every undervaluation, every wrong classification, every false invoice, which gets through the Custom House is, of course, a violation of law, and reduces the protection intended by the law.

Having shown the necessity for sound dutiable value and understandable rates of duty, we now come to the invoice regulations and how they have been abused. The invoice is supposed to be a correct statement of merchandise in the country of origin with the values specified according to our laws, and consuls or attested before an American consul or officer acting as such. Invoices are prepared in colors: "purchased goods" on blue, and "consigned" or for sale, on white paper. They generally come along by the same ship or train with the merchandise. Fully nine-tenths of all invoices are passed by the customs officials as correct at the port of entry. Here is the rub. Suppose an invoice reads, "Newsprint paper—free" when in fact the merchandise is book paper and dutiable. It might be passed free of duty as described and be released. To illustrate: A short time ago I called the attention of the Treasury officials to a case of this kind. Two separate investigations by special Treasury agents were made and nothing wrong was discovered. Being morally certain that a false invoice was "at work," I asked a friend to purchase a hundred reams of this foreign book paper under suspicion. The low price paid proved circumstantially that the law had been evaded. A third Treasury investigation was made and the secret uncovered—simply, false invoices. Many thousands of dollars were assessed against that importing firm, the head of which died within a few days, a rumored suicide. He had made big money in evading the tariff laws, but finally was tripped up. During the period of his operations the domestic trade was demoralized and honest importers put out of business. How many of these false invoices are constantly afloat and successfully cleared?

To get back a little. The foreign exporter who does not recognize our laws prepares his invoice and as a rule sends it to the American consul by a messenger who does not know nor care what the invoice describes. The invoice is consuls or certified perfunctorily and is worthless, except to identify the shipment. A supreme effort was made during the second administration of President Cleveland to put some virility into the invoice by Mr. Hamlin of Massachusetts, Assistant Secretary of the Treasury. He told me the story, in effect as follows: "Yes, we find that much legalized smuggling comes through the original invoice and I have been trying for a long time to correct this. We approached all governments doing business with us to adopt a plan of having all invoices certified by officials in the country and under the laws of the country whence exported, before consultation by the American consul. Great Britain was the first to accept,

and finally all countries agreed excepting one. That one objection blocked the entire plan. The objection came from Germany." Invoice methods have not been changed to this day.

Now let the invoice arrive at an American port, say at New York. After the payment of estimated or tentative duties, it goes to the Invoice Bureau, beginning official scrutiny. Here one out of ten cases or packages, all consecutively numbered, of the importation described, is ordered to the Appraiser's Stores for examination, appraisal and classification. Often foreign exporters pack "one case in ten" absolutely correct as to weight, measurements and prices. The Invoice Bureau is generally rushed and the customs broker is always in a hurry for, as he says, "the importer is in an awful hurry to get the goods." How easy it is for the broker to help out the entry clerk by "checking" the numbers of the cases to be sent to the appraiser to examine. I remember of an importation of 98 cases of Japanese silks; ten cases were checked in ink for the appraiser. It happened that the appraiser had received confidential information of fraud and had ordered all of that shipment to be sent to him for examination. His information was confirmed, for it was found that the ten cases intended for the appraiser's official eye were absolutely correct and the 88 cases or balance of the shipment represented excessive weights, undervaluation and higher rates of duty. The additional amount of duties assessed and collected on the 88 cases amounted to many thousands of dollars. Presumably this had been going on for years, as the owner of the invoiced merchandise had in a comparatively short time driven honest importers out of that line and controlled the American market entirely. This illustrates how the invoices of "purchased goods" are manipulated.

By the "consigned" invoices are the greatest frauds perpetrated, as the exporters practically control information regarding value and the rate of duty applying to the merchandise. To illustrate: A tramp steamer arrived at New York loaded with wool consigned to one of our great railroads for distribution to manufacturers along the line. The U. S. Appraiser stumbled on to the fact that the invoice indicated a low rate of duty when as a matter of fact the highest rate was applicable. The ten or twelve lighters of wool were all held for examination and a terrible hue and cry went up from the transportation company on account of the complaints of delay by the ultimate consignee, and the costs of demurrage. The wool was found to be of the highest dutiable class and, had the invoice description prevailed, great loss to the revenue would have resulted. Investigation showed that the wool had been sold as of high class duty paid, but the foreign exporter evidently thought that he could make a big haul out of Uncle Sam by the elasticity of the invoice system.

Therefore, I recommend that the Congress provide that all foreign invoices be certified under the laws of the country where they originate before consultation; and that the Collectors of Customs shift their entry or invoice clerks constantly in order that collusion between the customs brokers and entry clerks may be reduced to a minimum.

Supplementary to my suggestions regarding invoices I believe that all merchandise—dutiable or free of duty—should be carefully examined by the U. S. Examiners of Merchandise. The bulk of importations are free of duty and only superficially examined. The invoice may describe "free

goods" when the package really contains dutiable. Naturally, the Treasury Department will say, "We haven't the men or money to do this." It can have both, if the Congress will place a very small ad valorem duty on all foreign merchandise now on the free list, covering the cost of examination and appraisal. This would be an effective weapon against

the false invoice, for with this duty in effect violators of our customs laws whenever discovered would suffer all the penalties applicable. Under present conditions when dutiable goods are discovered under a "free entry" the importer says, "How could such a mistake have been made?" pleads ignorance, and in some way the matter is adjusted.

Cotton Goods Census of Manufactures, 1927.

INCREASE IN QUANTITY BUT DECLINE IN VALUE OF OUTPUT COMPARED WITH 1925—PROPORTION OF INDUSTRY LOCATED IN SOUTH NOW 62 PER CENT OF COUNTRY'S TOTAL.

The Department of Commerce announces that, according to data collected at the biennial census of manufactures taken in 1928, the establishments engaged primarily in manufacture of cotton goods in 1927 reported products valued at \$1,567,400,612, a decrease of 8.6 per cent as compared with \$1,714,367,787 reported for 1925, the last preceding census year.

Production for 1927 was as follows: Woven goods, over 12 inches in width, 8,980,414,774 square yards, valued at \$1,183,760,651; cotton yarns for sale, 664,334,562 pounds, \$253,663,750; thread, 29,992,472 pounds, \$46,409,250; cotton waste for sale, 484,416,320 pounds, \$26,808,851; other products, \$56,758,310. The leading items entering into the total for woven goods were: Sheetings, 1,857,476,174 square yards, valued at \$167,888,002; print cloth, 1,583,861,282 square yards, \$109,826,442; cord fabric for tires, 179,740,778 square yards, \$66,974,970; napped fabrics, 400,097,211 square yards, \$55,386,356; twills and sateens, 413,996,565 square yards, \$50,336,045; denims, 254,117,955 square yards, \$49,791,845; plushes, velvets and velveteens, 42,680,229 square yards, \$45,710,213; ounce duck except tire, 178,807,302 square yards, \$43,555,624; towels, towelings and wash cloths, 169,997,031 square yards, \$42,611,371; fabrics (other than shirtings) in chief value of cotton containing rayon, 163,824,938 square yards, \$41,644,800; drills, 347,775,666 square yards, \$40,668,249; shirtings, made entirely of cotton, 299,453,436 square yards, \$38,953,426; reps, poplins and broadcloths, 264,724,549 square yards, \$37,655,931; gingham, 290,618,626 square yards, \$37,128,856; fabrics entirely or in chief value of rayon, 117,052,733 square yards, \$36,300,172; lawns, nainsooks, cambrics and similar muslins, 272,453,611 square yards, \$32,100,888.

The cotton-goods industry embraces mills engaged primarily in any of the processes preparatory to spinning, in spinning, and in weaving piece goods over 12 inches in width. (Manufacturers of cotton knit goods are not included, being classified in the "Knit goods" industry.)

Of the 1347 establishments reporting for 1927, 374 were located in North Carolina, 163 in Massachusetts, 163 in South

Carolina, 139 in Georgia, 107 in Pennsylvania, 68 in Alabama, 66 in Rhode Island, 35 in Connecticut, 35 in New York, 26 in Texas, 25 in New Jersey, 21 in Tennessee, 17 in Maine, 17 in New Hampshire, 14 in Mississippi, 11 in Illinois, 11 in Virginia, 9 in Michigan, 8 in Maryland, 7 in Ohio, 5 in Wisconsin, 4 in California, 4 in Kentucky, 4 in Vermont, 3 in Arkansas, 3 in Indiana, 3 in Louisiana, 2 in Missouri, 2 in Oklahoma and 1 in Delaware. About 62 per cent of the country's cotton mill establishments are now located in the South.

In 1925 the industry was represented by 1366 establishments, the decrease to 1347 being the net result of a loss of 121 establishments and a gain of 102. Of the 121 establishments lost, 66 went out of business prior to 1927, 29 reported commodities other than cotton goods as their principal products in 1927 and were therefore transferred to the appropriate industries, and 26 were idle throughout the year. Of the 102 establishments gained, 6 had manufactured other classes of commodities as their principal products in 1925 and 96 reported for the first time at the present census.

PRELIMINARY SUMMARY FOR THE COTTON GOODS INDUSTRY FOR UNITED STATES, 1927 AND 1925.

	1927	1925	Per cent of increase or decrease (-)
Number of establishments...	1,347	1,366	- 1.4
Wage earners (average for the year)*	467,596	445,184	5.0
Wages†	\$380,909,543	\$353,882,870	7.6
Paid for contract work.....	\$8,710,052	\$7,688,636	13.3
Cost of materials, mill supplies, fuel and purchased power, total‡	\$871,591,901	\$1,077,152,614	-19.1
Materials and supplies.....	\$829,687,805	§	...
Fuel and power.....	\$50,904,096	§	...
Value of products†	\$1,567,400,612	\$1,714,367,787	- 8.6
Value added by manufacture§	\$695,808,711	\$637,215,173	9.2
Horsepower	2,358,830	2,236,363	5.5

*Not including salaried employees.

†The amount of manufacturers' profits cannot be calculated from the census figures, for the reason that no data are collected in regard to a number of items of expense, such as interest on investment, rent, depreciation, taxes, insurance and advertising.

‡Not reported separately.

§Value of products less cost of materials, mill supplies, fuel and purchased power.

SUMMARY FOR THE COTTON GOODS INDUSTRY FOR LEADING STATES, 1927 AND 1925.

	Establishments		Wage earners		Products		Per cent of total	
	1927	1925	1927	1925	1927	1925	1927	1925
United States	1,347	1,366	100.0	100.0	467,596	445,184	100.0	100.0
Cotton-growing States*	834	809	61.9	59.2	281,390	246,974	60.2	55.5
New England States†	302	332	22.4	24.3	155,642	164,954	33.3	37.0
Other States‡	211	225	15.7	16.5	30,564	33,256	6.5	7.5
Cotton-growing States:§								
North Carolina	374	364	27.8	26.6	95,786	84,139	20.5	18.9
South Carolina	164	162	12.1	11.9	75,069	66,378	16.1	14.9
Georgia	139	134	10.3	9.8	56,607	48,612	12.1	10.9
Alabama	68	68	5.0	5.0	24,825	21,607	5.3	4.6
Virginia	11	10	0.8	0.7	8,426	8,035	1.8	1.8
New England States:¶								
Massachusetts	163	178	12.1	13.0	90,875	96,182	19.4	21.6
Rhode Island	66	75	4.9	5.5	26,203	29,276	5.6	6.6
New Hampshire	17	17	1.3	1.2	14,722	14,745	3.1	3.3
Connecticut	35	42	2.6	3.1	12,639	12,020	2.7	2.7
Maine	17	16	1.3	1.2	10,195	11,851	2.2	2.7
Other States**								
Pennsylvania	107	115	7.9	8.4	12,160	11,523	2.6	2.6
New York	35	43	2.6	3.1	7,572	8,111	1.6	1.8

*Alabama, Arkansas, California, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.

†Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

‡Delaware, Illinois, Indiana, Maryland, Michigan, New Jersey, New York, Ohio, Pennsylvania and Wisconsin.

§Principal States, ranked according to value of products.

MISSISSIPPI FLOOD CONTROL—

*A Summarization of the Difficulties and of the Methods
Thus Far Developed Toward Their Solution.*

Number 1.

By CARROLL E. WILLIAMS.

WITHIN the next ten years it is proposed, under the Judwin plan, to expend more than \$325,000,000 on the Mississippi River for flood control work. Six main projects are features of the plan as now outlined: First, the construction of floodways from Cairo, Ill., to New Madrid, Mo., from the Arkansas River through the Tensas Basin in the Red River and from the Red River, through the Atchafalaya Basin, to the Gulf of Mexico to divert from the main channel water that cannot be safely carried; second, a controlled spillway to hold the water level in the vicinity of New Orleans down to a safe stage; third, local setting back of the levees at "bottle necks"; fourth, enlarging and strengthening levees; fifth, revetment of caving banks; sixth, improved channels for river traffic to be not less than 300 feet wide and from 6 to 9 feet deep, to be provided by dredging and by contracting the river at strategic points.

Although there has been no definite announcement of policy, it appears to be the accepted idea that this work will be performed under a 10-year program that began July 1, 1928. The work outlined can probably be completed in a shorter time should Congress decide to provide funds at a faster rate. In the year ending June 30, 1929, it is expected that the \$24,000,000 appropriated at the last session of Congress will have been expended. For the fiscal year ending June 30, 1930, approximately \$30,000,000 is to be expended, and it is probable that appropriations thereafter will be asked for at a rate of at least \$35,000,000 a year.

The following table shows the estimated cost of the various kinds of work which is to be performed in carrying out this plan, and an examination of it will show the relative importance of the various classes of work and their magnitude:

ESTIMATE OF COST OF ADOPTED PROJECT.

Levees	\$190,250,000
Rights of Way and Flowage.....	5,750,000
Bonnet Carre Spillway.....	11,500,000
Revetments	80,000,000
Contraction Works.....	20,000,000
Dredging	10,000,000
Mapping	1,000,000
Total	\$318,500,000

The flood control act of 1928 created a new set-up for handling the Mississippi River work. The Chief of Engineers, United States Army, under the Secretary of War, is in direct control. The Mississippi River Commission, which has previously been in authority, is now an investigating, advisory and planning body, as well as the executive agency for directing construction work. It is composed of seven members—three army engineers, two engineers from civil life, an official of the Coast and Geodetic Survey, and a business man. Brig.-General T. H. Jackson, Corps of Engineers, U. S. Army, is president of the Commission, which maintains headquarters at St. Louis, Mo. All of the construction work is controlled direct by the various district offices, which are made up as follows:

Rock Island Engineer District: Maj. C. L. Hall, Corps of Engineers, U. S. Army, Federal Building, Rock Island, Ill.
Mouth of Illinois River to Rock Island, Ill., 273 miles.
St. Louis Engineer District: Maj. John C. Gotwals, Corps

Prodigious Engineering Problems Involved in Curbing the Father of Waters.

The magnitude of the problem of flood control is strikingly indicated by the following pertinent facts:

Approximately 350,000,000 cubic yards of earth are carried annually to the Gulf, sufficient material to cover an area of one square mile to a height of over 350 feet.

Its waters come from 31 states, and through its aid to drainage, navigation, water supply, power, industry, agriculture and incidental uses, it renders a direct vital service to over 40 per cent of the area of the country.

The Mississippi watershed totals 1,240,000 square miles. Its extreme dimension is 1900 miles, New York to Montana; its extreme latitude 1400 miles, Canada to the Gulf.

From the headwaters of the Ohio to the Gulf the distance is 2370 miles; from Lake Itasca it is 2475 miles and from the headwaters of the Missouri to the Gulf it is 4200 miles.

During flood conditions, the potential power of the river from Cairo to the Gulf is about 60,000,000 horsepower and the lawless and treacherous river spends its force in eroding banks, transporting silt and in driving the great volume of water to the sea.

In the distant past the Gulf of Mexico was perhaps in the vicinity of Cairo, Ill., and the river in its natural untrammelled condition during floods, was perhaps 50 or more miles wide and its normal channel shifted, in ages gone by, from one location to another. It had the privilege of overflowing when necessary over vast areas, bringing down with it enormous quantities of earth and gradually building up the delta valley over 500 miles long and 50 miles wide to an unknown depth.

Levees are now close to the practical limit of height. Additional heights not only become very costly, but add a great menace to property and lives.

The world's greatest river is the Mississippi. It is one of this country's most valuable assets and at the same time one of its greatest problems.

Presents Problems of Great Magnitude.

of Engineers, U. S. Army, Custom House, St. Louis, Mo. Upper limits of Memphis Engineer District to and including the mouth of the Illinois River, 190 miles on left bank and 181 miles on right bank.

Memphis Engineer District: Lieut.-Col. F. B. Wilby, Corps of Engineers, U. S. Army, Memphis, Tenn., Cape Girardeau, Mo., on right bank and Thebes, Ill., on left bank to mouth of White River on right bank and to Coahoma-Bolivar County line, Miss., on left bank, 460 miles on right bank, and 411 miles on left bank.

Vicksburg Engineer District: Maj. John C. H. Lee, Corps of Engineers, U. S. Army, Vicksburg, Miss. Lower limits

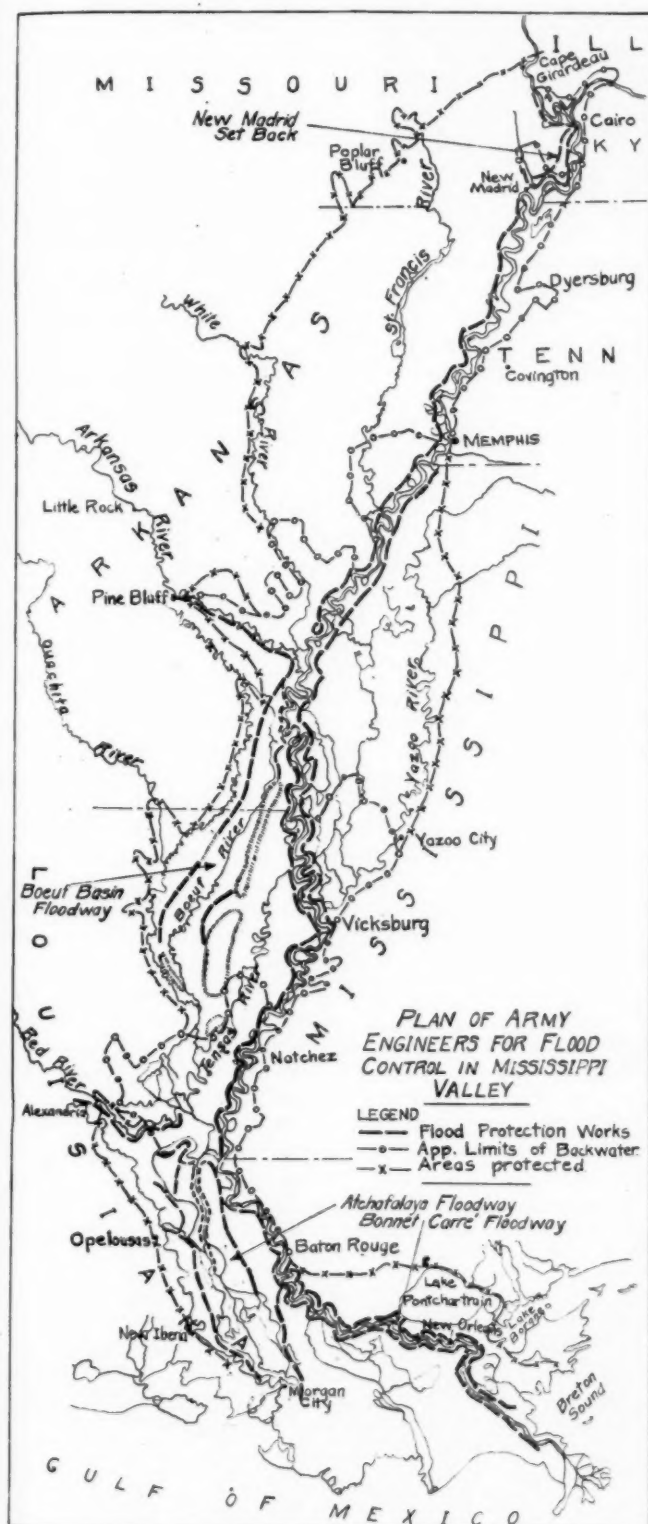
of the Memphis Engineer District to Warrenton, Miss., 218 miles on right bank and 244 miles on left bank.

New Orleans River District: Maj. W. H. Holcombe, Corps of Engineers, U. S. Army, New Orleans. Starts 6 miles below Vicksburg at Warrenton, Miss., and extends to the mouth of the river to the passes which are the forks for getting the river water into the Gulf, 456 miles.

Each district engineer working under the direction of the Commission and the Chief of Engineers, plans, allocates, contracts for and directs all improvement work. In general, the district organization functions through sub-divisions known as areas, with an area engineer in charge of all construction in each.

Two outstanding policies approved to date are those covering priorities and levee construction. It is planned that the work shall in general be performed so that priority of the work at any point shall be determined by its jeopardy. As an illustration, in the stretch of river above the Arkansas, the point of greatest jeopardy is in the vicinity of Cairo. Hence, work on the New Madrid diversion floodway has the highest priority of any work in that section. This does not mean that no other work will be done in this section immediately, but it does mean that the construction of the New Madrid diversion floodway is to be carried out under a 3-year program. Similarly, the Bonnet Carre spillway is to be carried out under a 2-year program. The second policy is based on the fact that since levees are prime requisites, this work is being stressed over all save the special cases. In the past, limited appropriations and the extent and demand for protection along the river has been such as to put practically all work into the emergency class, and many jobs could not be advanced because of lack of funds. With a definite program and funds assured for carrying out the work, the Commission has embarked on a policy of doing portions of the work on long term or continuing contracts. It hopes, in this way, to attract contractors with large, trained organizations and high capacity, efficient machinery, to bid on the various projects. This year it is planned to let continuing contracts, extending over 3 years, for levee work involving about \$5,000,000 a year, and it is felt that this is as large an amount of funds for 1931 and 1932 as should be obligated at the present time. It is anticipated that next year there will be continuing contracts involving like amounts and covering the fiscal years 1931, 1932 and 1933, and that the same policy will be followed until at least three-fourths of all money expended on levees in any year shall be under 3-year continuing contracts. It is thereby hoped to materially decrease unit costs and to develop and maintain on the river work a group of contractors who will feel justified in bringing about that development of earth-moving machinery which all recognize as necessary.

One of the big problems in handling the new program has been the development of proper organizations in the Memphis, Vicksburg and New Orleans districts, which perform all the work. Heretofore, in each of the three lower river districts, about \$3,000,000 has been expended annually. Soon expenditures in each of these districts will be at the rate of about \$12,000,000 a year. It was not only necessary for the Commission to create an organization for directing work entailing an expenditure of three to four times the previous annual expenditures, but also to initiate new lines of endeavor. The districts cannot go out and pick up men as do contractors and private firms. They operate under Civil Service and have permanent organizations that feed from the bottom. It, therefore, is impracticable to expand over night. General Jackson is pleased with the progress that has been made to date, and feels that the districts are now organized to properly assume the additional burdens imposed by the increased volume of work. There was a complete reorganization of the





The upper banks of the river may be paved satisfactorily with the lapped slabs normally used in subaqueous work. They are placed by a derrick one at a time. Ordinarily the bank paving consists of a 4-inch concrete pavement.

field forces. The work of planning was so well done that by the end of last November, 74 per cent of the year's appropriation had been expended or obligated without departing from the rigid departmental regulation designed to insure against waste or ill-considered disposition of funds.

The districts have been particularly burdened by duties in connection with flood control studies on the tributaries, which will in some instances require at least two years to complete. Another problem that has resulted from the adoption of the new plan is that the Commission must provide its own rights of way whenever the levees are located far distant from the river. Heretofore the local levee districts have provided rights of way near the river. This new problem, naturally, is causing much delay and trouble. Litigation covering the purchase of particular pieces of property is delaying off-the-river work.

Volume of Construction Presents Opportunities for Contractors and Equipment Manufacturers.

The major construction projects in the plan as adopted include: (1) Levee construction, which involves the biggest expenditure, about 60 per cent of the total funds; (2) revetments and contraction work, about 32 per cent of the total funds; (3) the Bonnet Carre Spillway, about 3½ per cent of the total funds. In addition, large sums in the aggregate will be expended for dredging channels, for rights of way for new levees, new equipment for the various districts, surveys and mapping, repairs and replacements, extensions to the shops in each of the districts, etc.

Loading cars in a borrow pit near Lake Cormorant, Miss. A model 700 P & H dragline with a 1¼-yard bucket loading into 4-yard Western dump cars pushed by a 4-ton Vulcan locomotive.

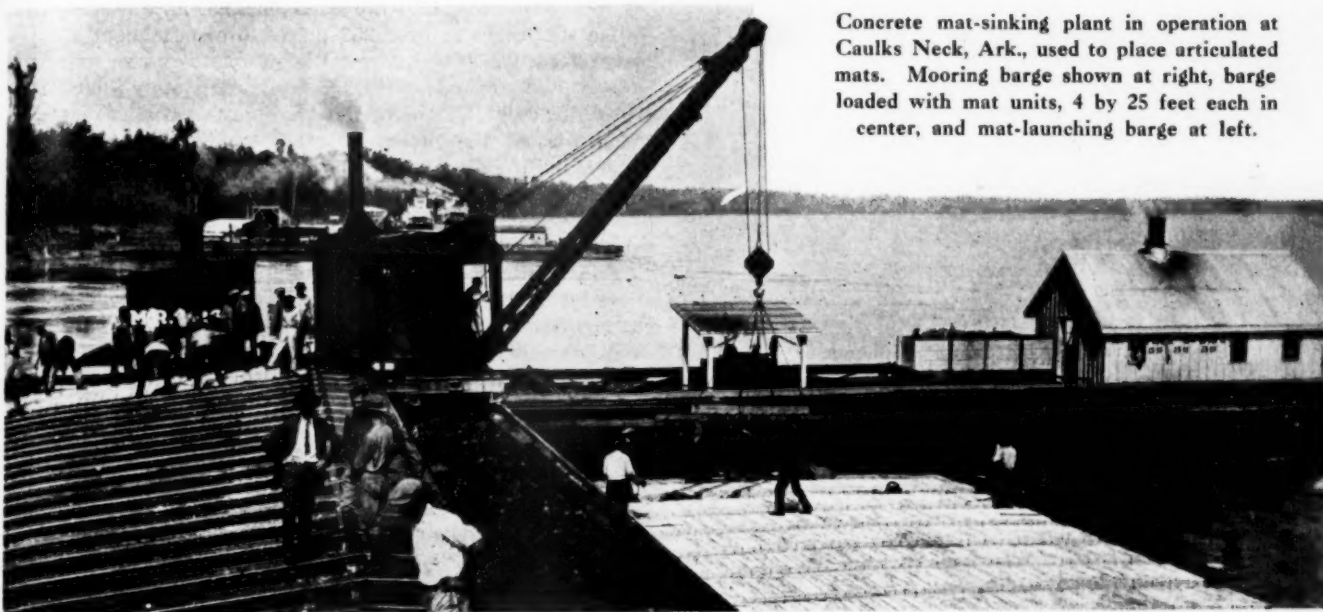


Assuming that levee construction will average 25 cents a cubic yard, this will mean the moving of approximately 75,000,000 cubic yards of material annually. Revetment construction involves the expenditure of probably \$300,000 a mile, so that an average of about 27 miles will be built annually under the 10-year program.

With respect to awards of contract the following policy is ordinarily observed:

Where no government plant is available or it cannot be procured to do the work under the proposed contract within the time or rate contemplated in the specifications, award is made to the lowest responsible bidder where his bid is considered reasonable; otherwise the work is readvertised. Where government plant is available or can be procured to do the work within the time or rate contemplated in the specifications, if the lowest bid plus superintendence and inspection charges exceeds materially the hired labor estimate, the work is usually performed by the government, but it may be awarded by contract at the option of the government where such award will result in the performance of the work at a cost not more than 25 per cent higher than the cost of doing it by hired labor. The government hired labor estimates include: Direct costs such as—labor, materials, cost of operation, maintenance and depreciation; indirect costs such as—overhead; cost of mobilization; interest on capital invested at maximum prevailing rate being paid by the United States on current issues of bonds or other evidence of indebtedness; and other items properly chargeable to the work under approved methods of accounting.

While each of the districts has a large quantity of equipment suitable for levee construction, it is unequal to the task of building levees at the rate now proposed, so the opportunity for contractors on this class of work is growing. Revetment construction is being handled, and will be handled, largely by government forces. Equipment for casting the units and for constructing the revetments is, for the most part, specially constructed for the work, after designs by the engineers, and an entire layout for this class of work represents an investment of several million dollars. There is, how-



Concrete mat-sinking plant in operation at Caulks Neck, Ark., used to place articulated mats. Mooring barge shown at right, barge loaded with mat units, 4 by 25 feet each in center, and mat-launching barge at left.

ever, an opportunity for contractors to develop new methods of laying and placing concrete revetments, and possibly there will be an opportunity for private enterprises to engage in this work some time in the future, although the government forces have a running start.

The Commission is hopeful that the big volume of work in sight, considering levees alone, will attract bidders from all parts of the country and will stimulate interest in the design and construction of equipment that will make possible lower unit costs, as suggested. This offers an opportunity both for the contractors and the manufacturers of equipment. Some progress along these lines has already been made, and some new methods of construction and new types of equipment have been introduced. Not only are many miles of new levees to be constructed, but established levees are to be enlarged and strengthened. The Army Engineers realize fully that many problems confront them in carrying out the program. A few problems have been solved, most remain to be solved. It has been determined that the levee section shall be based on the nature of the material of which it is constructed. There is no longer any standard levee section. Tests and experiments are being carried on in the field to determine accurately on standardized sections for particular materials. Thus far, three sections have been tentatively decided upon, for gumbo, loam and sand. The borrow pits will be carefully tested by the engineers to determine the character of materials and this in turn will govern what section of levee will be constructed.

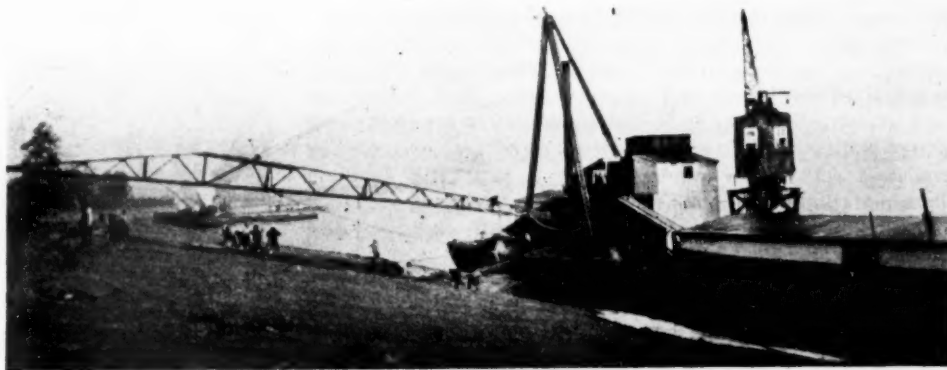
The great increase in the size of the levee section due to the raising of the height an average of 3 feet has brought up

new problems, for additional volumes of materials must be handled over greater distances. In enlarging the established levees, it will be necessary, many times, to go far afield for materials, the nearby borrow pits in many cases having been exhausted in constructing the existing levees. This will mean the transporting of enormous quantities of materials by industrial railroads, by tractor-drawn wagons and trucks, horse-drawn vehicles, by hydraulic dredge pipe lines, drag-lines, etc. This will make it possible, however, to select more carefully the materials used in levee building. Because of the fact that levee construction cannot be carried on throughout the year, the government's fleet of dredges is, for the most part, idle a considerable part of the time. A plan is being considered to keep the fleet working almost at capacity the year round by using the dredges to fill in old borrow pits with new materials and to deposit materials in new pits advantageously located with respect to new construction and enlargement projects. In this way the contractor bidding on a job will be assured of a nearby supply of materials.

Many Hazards and Problems Involved in Levee Construction.

Every levee construction project presents its own hazards and problems. For instance, the levee site must be cleared of all trees and underbrush and this means the use of stump-pullers and dynamite. The borrow pits must also be cleared to facilitate operations, and since the majority of these are located on the river side of the levee, they are subject to overflow, and high water often seriously impedes construction progress. It is seldom possible to obtain material for levee

Type of plant used to pave upper banks with concrete in connection with concrete revetment construction. Some of the slabs in the revetment are shown at the right. The bank is first graded by hand.





Plant for Laying Slab Revetments.

The above equipment was developed after years of experimenting. It is used to pave river banks at points where scouring and erosion impends. This plant lays slabs 6 by 11 feet and 4 inches thick.

construction from the land side. The borrow pits are shallow, with slopes of say 1 to 50 or 1 to 100 ordinarily. Contractors that have specialized in levee construction have found it advantageous and desirable to operate at least two shifts, for the equipment is quite expensive, the working season is none too long, and every effort must be made to keep down overhead costs. This means that the jobs must be adequately lighted. In only a few locations are transmission lines so located as to make it worthwhile to connect with them. So portable electric power plants and acetylene lighting units are widely used, together with electric light facilities provided on the various machines, shovels, draglines, etc.

Because many of the construction jobs are located off the main highways and away from towns it is necessary to maintain camps for the laborers. Due to the equable climate, it is feasible to use tents for this purpose, although some temporary wooden structures are sometimes utilized. Engineer forces at various points set up very attractive camps, consisting of both tents and frame structures. The frame structures are in the form of bungalows and are finished inside with wallboard and neatly painted inside and out. Tents are inclosed with wood for about 4 feet from the ground, the floor being of wood placed on wood joists, supported about a foot above the ground. Tents and buildings are thoroughly screened. Each tent is provided with a fly, so there is always a circulation of air between the top of the tent and the fly-tent above it. Thus protection is afforded from the direct rays of the sun. The engineer offices also have built quite commodious quarter boats at a cost of about \$20,000 each. They are constructed on standard type barges, either all steel or of steel and creosoted timber, the quarters being two stories high with accommodations for about 200 negroes and 50 whites each. There are separate dining rooms for whites and blacks, and baths and showers for each. The boats are lighted by domestic type generator and battery plants. Hot water heating systems are also provided.

Materials used in levee construction—gumbo, loam and sand—are all quite readily handled when they are dry. But when wet, each presents its individual problems. Gumbo is very sticky and when handled by hydraulic dredge, it has a tendency to form in balls and is given the name "buck shot." The silt is very difficult to handle under any condition and particularly by the hydraulic method, since it is a hard task to get it to precipitate and remain stable. It is the softest mud conceivable. Sand is easiest to handle, either in the wet or dry state, and does not present so many problems. When combined with either gumbo or silt, it facilitates handling those materials. The buck shot levee is very highly regarded and the levee built of silt, combined with sand, is quite satisfactory.

A demonstration of the tremendous power of the river to destroy was exhibited in the Mound Landing crevasse, created during the superflood of 1927. The 1927 disaster, which was due largely to the swollen tributaries of the river all pouring

their flood waters into the main channel at the same time, broke the levees in over 250 places, drowned about 250 persons, flooded 23,000 square miles of territory and exacted a loss of property and life valued at approximately \$350,000,000. However, only 17 levee breaks were on the Mississippi River. Thus far the 1800 miles of levees on the lower Mississippi River, built at a cost of some \$250,000,000, have been the sole weapon used to tame the river. By the passage of the flood control bill by Congress in May, 1928, the government of the United States accepted the responsibility for protecting the lower part of the Mississippi Valley. It meant the abandonment of the policy of levees only and the development of supplemental devices, such as spillways and lateral floodways to aid in the disposal of flood waters. Levees are by no means to be abandoned; rather the present plan provides for building the levees higher, wider and stronger than ever.

River Demonstrates Its Force Clearly in Creating Mound Crevasse.

Prior to the break at Mound Landing, a ferry had been discharging heavily loaded trucks, motor cars and buses, despite the fact that the rising waters had for some days been lapping the topmost point of the levee and sand bags had been piled three high to prevent washing. Boils had appeared behind the levee and secondary levees thrown up gave some little relief, but once thoroughly saturated and with



Enlarging a Mississippi Levee.

An idea of the great size of the new levee section may be gained by comparing the old levee shown at the left with the higher and broader levee at the right, imposed upon the old.

seepage quite prevalent, the weakened levee at a point in a direct line with the flow of the river, was unable further to withstand the onslaught, and ultimately it gave way with a thunderous clap; for several days a veritable whirlpool and rapids prevailed at the levee break, and the waters poured through and down and over the country around Greenville. The huge volume of water rushing through the opening widened the breach to half a mile in four hours. A few days after the break occurred, soundings taken with a 100-foot line failed to strike bottom in the "blue hole," so called because water of such depth assumes a blueish cast. The blue hole extended for a mile back from the levee and at the 3/4-mile point it divided into two channels to form a Y. The flood waters deposited huge quantities of silt and sand on



Quarter Boats for Government Workmen.

Not only is much of the equipment used in flood control work of the floating type, but provision must be made for housing men convenient to river projects.

farm lands many miles distant from the crevasse, eventually flooding 700,000 acres.

After the water had subsided, the imperative need was to close the many breaks as quickly as possible. Despite all efforts, however, high water conditions on the river in June 1927 were such as to flood again a vast area and largely to destroy crops that had been planted following recession of the super flood waters in the early spring. About \$7,000,000 was expended in fighting the flood and for closing breaks in the levees. Surveys disclosed that it would be impracticable to attempt to replace the levee on the original site at Mound Landing, so it was decided to build a loop, skirting the blue hole. Because private contractors would not agree to build the loop in the time specified, the construction was undertaken by the district engineers. By filling in the badly washed areas with dredged materials and topping out the levee with tower machines and draglines, the job was finished in record time, involving approximately 2,000,000 cubic yards of material. The levee section is now being enlarged, approximately 600,000 cubic yards of material being involved.

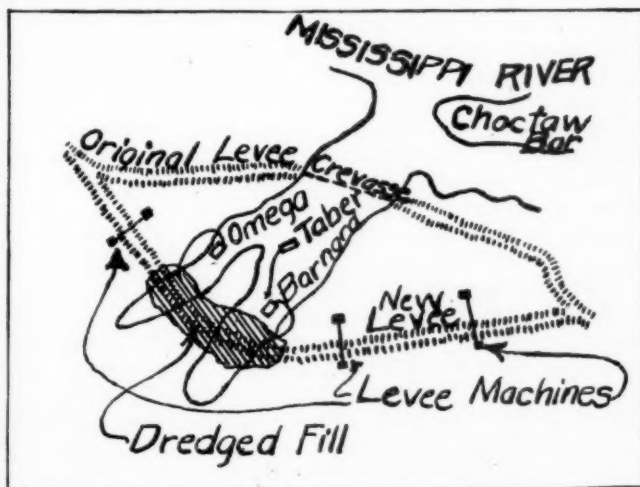
An idea of the strength and power of resistance of the levees is conveyed by the experience at the artificial crevasse



Pile Dike Under Construction.

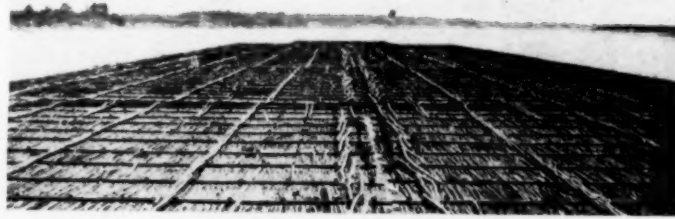
Part of a project near Chester, Ill., comprising a dike and mattress to protect the bank from erosion. A wide variety of construction methods are employed on river work.

created in 1927 at Caernovan below New Orleans to permit the quick discharge of flood waters out over the delta lands to the gulf, and thus prevent the flood doing serious damage in the Crescent City. Several million dollars was subsequently paid out by the city of New Orleans to owners of land in the section inundated by waters passing through this crevasse. It was determined to dynamite a hole in the levee at the desired point and so permit the waters to cut a pass sufficiently wide to care for the necessary volume of water. At a signal from an airplane flying overhead, the



How Mound Crevasse Was Closed.

Three dredges and three levee machines were effectively used to handle over 2,300,000 cubic yards of material in a remarkably short period of time.



Willow Mattress Sections in Tow.

These sections are built on bars where willows grow and after launching are sometimes towed for hundreds of miles and installed as revetments. Elaborate facilities are provided for sinking and holding them in place. They are often placed in water up to 175-feet deep.

workmen were to fire the charge. It was expected that a thunderous clap would follow and that the waters of the Mississippi would flow through the break in a raging torrent that would quickly tear down the levee and rapidly widen. But it required two days of blasting with dynamite to provide a breach sufficiently wide to give the desired relief at New Orleans, and several more days elapsed before the waters finally cut through to the full width of the break. Some newspapers that had been tipped off as to the hour for the firing of the initial charge of dynamite carried big display stories describing in detail the "thunderous clap that followed and the mighty rush of the waters through the huge gap created" and it took them several days to explain to their readers how they happened to get the original story, for most papers reported accurately the incident as briefly sketched above.

Everyone now knows that the country faces a formidable task in curbing the Mississippi. The river is constantly changing its course, gouging out huge areas of earth, undermining banks and levees, building bars dangerous to navigation, seriously damaging costly concrete and willow mat revetments and piling up, during high water, debris in such quantities as almost to stagger the imagination. Some idea of the quantities in the river at flood stage may be gained when it is considered that during the 1927 super flood the volume of water passing Memphis was the equivalent of ten Niagara Falls. Normal speed of the current is five miles an hour.

The average high-water velocity is 6 to 8 miles an hour, depending on the width, depth and slope, which is equivalent to about 100 miles daily. Under normal conditions the crest advances about 30 to 40 miles daily.

Thirty miles north of New Orleans, the Bonnet Carre Spillway is to be constructed to divert 275,000 second feet of water through a floodway six miles long to Lake Pontchartrain and thence into the Gulf of Mexico. This is intended to keep the stage at New Orleans under 20 and will provide the same relief as did the artificial crevasse at Caernovan in 1927. Elaborate experiments on scale models are now under way at the spillway site and it is definitely indicated that the volume of water over the spillway will, in 24 hours, deposit more than 500,000 tons of silt, and this is about one-tenth of the total discharge of the river at flood stage. This figure seems wholly unreasonable until it is considered that over 52,000,000 tons of water will pass over the spillway in a 24-hour period, or well over 2,000,000 tons each hour. If the water, to pass over the spillway in a 24-hour period, was diverted to a channel one and a half miles wide and ten feet deep, it would form a ribbon of water more than 30 miles long, or if run into a channel, 100 feet wide and 100 feet deep, it would have a length of 270 miles.

Eternal Vigilance Necessary to Curb Ravages of the River.

Grass plays an important role in the control of this turbulent stream. In fact, it may be said to play a major part,



Camp for Laborers Engaged in Mississippi Flood Control Work.

for the sodded levee banks resist erosion remarkably well, whereas fresh earth banks are an easy victim for the swift moving waters. Thus it is that the first year in a levee's life is always the hardest, for until the grass grows it is quite at the mercy of the rushing waters. So all contracts made by the government for levee construction provide for planting Bermuda grass in clumps not more than two feet apart over the entire surface of the levee. This grass plays a dual role in that it also affords grazing space for cattle, and large herds feed upon it. Some farmers cut the Bermuda hay twice a year and bale it. Again, the grass, when it attains full growth, constitutes a natural retard, and facilitates silting and thereby helps to build up the levee and adjacent bank.

The sub-levee, the secondary levee, constructed on the land side, is said to have been developed by the late Major Thomas G. Dabney of the Yazoo-Mississippi Delta Levee District, and designed to hold down the pressure on the main levee from the river. Major Dabney would fill the space between the sub-levee and the main levee with water drained from the river, thereby equalizing the pressure, cutting down the danger from seepage and making the main levee more formidable and invulnerable.

A large part of the land in the alluvial valley is underlain with deposits of sand, which impose a particular and trying problem of flood control. Regardless of the type of material in it, there is always the danger from seepage through a levee that stands for long with water at flood stage and this condition determines, in large measure, the section of levee to be constructed at a particular point. While definite sections have been determined upon for levees of loam, silt and sand, they are by no means permanent sections, being simply based on the knowledge that has been developed to date. Extensive experiments are now being made to determine further the variation of seepage slope through levees of various height and material, and the results of these tests may greatly change the design of levee sections in the immediate future. In the construction of levees, great care is exercised, as has been pointed out, to clear the site of all tree stumps, underbrush, etc., and borings are often made to determine accurately the character of the material beneath, for many times levees have failed because they were built on unstable ground, as, for instance, on silt deposited over an ancient cypress bog that was underlain with old stumps and tree trunks, or on silt deposited on an old sand bar, the river having moved its channel to one side. But despite these precautions, there is always the danger from sand boils, which may result from water seeping through a deposit of sand and cropping out often far behind the toe of the levee. Often the sand boils appear 100 or so yards behind the levees. This is a danger that is independent of the cross section of the levee. These boils are in reality small artesian wells fed by the river itself, and

when detected they are safely controlled by simply building up about them a sand bag circular retaining wall until the water within ceases to rise. The terror in the sand boil situation lies in the fact that a sand boil, which develops at night, may get beyond control before it is detected. The boils occur normally during periods of prolonged high water. As the head of the water increases, the danger from sand boils is multiplied. Hence, this problem will become more acute as the levee heights are raised. Perhaps sub-levees will have to be constructed in extensive mileages where sand boils threaten. Also, boils will probably now be found at points farther from the levee than was the case with the lower structure.

Considering the character of material used in levee building, the structures show a most amazing ability to withstand so successfully the incessant wearing force of the turbulent Mississippi; there have been stretches as long as 100 miles in which there has not been a break in over 30 years. The buck shot clay levee tends particularly to grow stronger with age and forcibly to resist erosion. New levees are especially subject to damage, not only from high river waters, but they are badly washed by heavy rains. Constantly, inspection crews are going up and down the river checking channel depths, noting bar formations, carefully examining revetment and contraction works, studying bank conditions with a view to determining if sloughing and undermining impends, so that necessary new construction and repairs may be planned far enough in advance to be effective. Maps are in practically a continual state of revision and considerable sums are expended annually in surveys for such determinations. In some places the river is wearing the bank away at the rate of 50 to 100 feet a year, at other points it is removing large areas of land in big bites. In some sections the caving has amounted to 1,000,000 cubic yards per mile annually. More recently airplanes have been widely employed to prepare quickly maps of certain sections, for by flying at a given height and taking pictures at regular, predetermined intervals, an accurate scale map is prepared comparatively quickly.

The price of controlling the river is eternal vigilance. It is seldom content to maintain for long a channel in a set location. It is constantly wandering about, seeking new channels, tearing out its banks here, creating sand bars there, and endeavoring to shorten its path to the sea. New Orleans and Cairo are 500 miles apart by air line, yet the river distance between the two points is 1070 miles, in which mileage the river actually drops 250 to 275 feet. Hence, the slope of the river is only about half as great as it would be if its course were straight. Too many people who grow impatient at the lack of speed in controlling the river are inclined to think of it as they know rivers in the eastern part of the United States—that is, rivers that largely confine themselves year in and year out to the same channels within substantial banks

of heavily compacted earth, gravel and rock. These rivers are subject to heavy floods in proportion to their size, but their more stable channels are not materially changed. But the Mississippi often changes its gauge at New Orleans as much as 20 feet, and at Cairo as much as 50 feet. A perfect condition would exist if it were possible to stabilize the equilibrium between the velocity of the flow of the river and the ability of the soil in the banks to resist erosion; but floods destroy that equilibrium and additional caving results.

Contraction Work Plays Important Role in Facilitating Navigation.

Above Cairo the river banks, which are largely made up of rocks, facilitate contraction work; below Cairo the country is delta land and this makes contraction difficult. Contraction work in reality is little more than making the river dig its own channel at periods of low water, and is a system that has been extensively employed on the River Rhine. The river must lend itself to this treatment and factors entering into it are: First, slope of stream; second, character of bed and bank; third, amount of low water discharge. It can be handled by clusters of piles placed at intervals out from the bank and generally called permeable dikes, because they allow the water to flow through, but retard it and encourage silting. Mats are laid on the river bed to protect against scouring and also to protect the base of the piles.

Woods Bros. Construction Co., Lincoln, Neb., have successfully installed a patented retard at many points on the Missouri River and also on the Mississippi. These retards consist of a crib made up of trees with the limbs still on them; the tree trunks are anchored together by steel cables and these steel cables are fastened to piles driven below the bed of the river by a special process. The number of retards at a particular location depends entirely on local conditions. Perhaps two or three will suffice at some points, while at other locations the use of as many as 30 will be necessary. The retard farthest up stream may extend about 50 feet from the bank, the next 100 feet, the next 150 feet, and so on. The barrier is essentially a brake on the river's speed; the water flows in, is detained by the obstructions, its velocity is reduced, and as a result much silt is deposited. Gradually, just below the retards a fill develops and the river, instead of destroying land, is really making land.

Once the river is diverted into the new, comparatively narrow channel, and its velocity speeded up it will automatically keep the channel clear of silt and therefore will facilitate navigation and reduce the danger of flood.

Caving Banks Make Necessary Building of Costly Retretments.

In addition to levee construction and contraction work, revetment construction is an important part of the program of control, and whereas \$190,000,000 has been tentatively decided upon for levee improvements, about \$80,000,000 will be expended for revetments. In revetment construction, at a point where there is danger from scouring, or where bank caving impends, the river bed is paved either with willow mats or concrete mats. It is particularly necessary to pave the portion of the bank from the low water level, where the mat sections usually end, to the top of the levee. The method has been in use for many years, but improvements are steadily being made in the design of the mats and in the methods of manufacturing and laying, and the cost has been reduced from \$350,000 to as little as about \$250,000 a mile at favorable locations. Two types of reinforced concrete mats are now used, one made up of concrete slabs about 6 by 11 feet with the four corners cut off, the mats being laid with a 6-inch overlap and joined together at each of the corners by half-inch cables. The other type mat consists of articulated units 1 by 4 feet each, cast in sections 4 by 25 feet each, and the reinforcement projecting at the top and bottom and sides of the sections is laced to other sections with half-inch cables.

There is a space of 1 inch between each of the 1 by 4 foot slabs and the reinforcing holds them together and at the same time permits of flexibility of movement to conform to the river bed.

Each of the three lower flood districts has a more or less complete plant for handling repair work, reconstruction, rebuilding and some new construction. Approximately \$500,000 is now being expended for new buildings and equipment at the three shops. These shops play an important part in keeping the government-owned equipment in working condition, having facilities for the heaviest kind of repair work. They also permit of the building of barges of steel and creosoted timber, quarterboats, inspection boats of say up to 50 feet in length, row boats, storage tanks, structural steel work, and similar items in wide variety. The two concrete mat-casting and laying plants, one of which is operating in the Vicksburg district and the other in the Memphis district, were constructed partly by contract and partly by hired labor at the Memphis and Vicksburg shops. While much of the equipment was in the form of standard units such as concrete mixers, conveying systems, storage bins and electric power shovels, there was a vast amount of special work to be done in connection with assembling these units into a floating plant as designed by the engineers. In the New Orleans district, a number of new steel-frame metal-clad shop and office buildings are now being erected, and all the material is being fabricated in existing shops and erected by government forces. There is a pattern shop capable of turning out patterns for any repair or new parts needed. These shops have also a complete creosoting unit that specializes in treating timbers of any size for use in constructing barges, boats, etc. At all three shops there are shipbuilding ways where all classes of river equipment may be overhauled, rebuilt, or constructed anew. Reclamation of badly worn parts of heavy draglines, tower machines, dredges, shovels, etc., is a feature of the work. For instance, old axles and costly gears are remade by building up worn metal with metal put on either by the acetylene or electric welding processes, the parts being then ground to desired size and shape by carbundum wheels. The shops are, in reality, complete shipbuilding plants with woodworking, machine, blacksmith, carpenter, boiler and metal working departments.

An interesting piece of machinery, whose possibilities have not yet been fully determined by tests, is a bank planer recently completed by the Vicksburg district. It is built around a huge Bucyrus dragline, mounted on a standard size barge. A 60-foot boom supports the planer blade which is, in reality, a steel plow mounted on two heavy I-beams, suspended about 6 feet apart from the bottom. The barge operates perpendicularly to the river bank and the planer blade is to clear the bank of obstructions and make it comparatively level, so that it will be in good condition to facilitate laying the concrete mats and paving the bank above low water.

North Carolina Considers Its Tax Situation.

In a comprehensive report to Governor McLean, the North Carolina Tax Commission finds that, while "the use of credit, which means higher taxes, should not be further employed by the State or by local units of government, except in case of grave public necessity," one "may not rightly say that the State has reached the legal limit of its ability to impose taxes." The tax on income, it adds, includes income from property that is taxed, and this the commission regards as in the nature of double taxation. "State revenue would not at this time present any difficult problems but for the demands for greater participation by the State in local expenses for which there is held to be State responsibility," the commission says; also: "The State has a surplus in its general fund, and we may reasonably anticipate a natural increase in revenue from existing levies to take care of natural increases in expense" of maintenance.

DIVERSIFICATION—the Key to Texas' Future Greatness.

By E. B. NEISWANGER, Vice-President, Central Power & Light Co., San Antonio.

For every great undertaking that promises future success, there must be some all important, underlying condition or feature which furnishes the foundation or prospect for such success. The developers who achieve great results are those, who, after careful analysis, determine the strong points of their plan and proceed along well-organized lines to reach their objective. South and Southwest Texas today is the outstanding example of a "diamond in the rough" and requires only the finishing process to establish its true value. What the diamond finisher does to add commercial value to the rough carbon, the developers who have the vision, faith and energy will accomplish with Texas.

A \$1,000,000,000 Crop State.

To look back on the development of Texas—it was a great state when the cattle, sheep and goat business was its principal industry. It was a greater state when the development of cotton farming provided the earlier means of diversification for the cattle industry. Agriculture has been expanded and developed until Texas has achieved the distinction of being a billion dollar crop-producing state, leading the nation in this respect.

South and Southwest Texas have launched agricultural development on an extensive scale. What has been accomplished has been done mainly with ordinary farming methods. What can be accomplished with its millions of fertile acres when crop diversification and scientific farming methods have been applied can well be foreseen.

The Nation's Future Market Basket.

Those who would picture the future need only visualize the position of Texas, when in addition to cattle and cotton, the state secures a fully developed dairy industry and increases production of winter vegetables to an extent that will establish its claim to being the "nation's market basket." It is not the livestock and cotton industry that guarantees continued prosperity, since in drouth years either or both may fail to preserve the State's financial stability, but when in addition in the irrigated areas there are grown winter vege-

tables, onions, potatoes, corn, citrus fruits, grapes, pecans, melons, strawberries, feed crops and other diversified agricultural products, the farmers and business men will be able to look to the future with some assurance that their optimism has not been unfounded.

Great Expansion of Public Utilities.

The enormous investments made by public utility companies in Texas during the past four years could not have been justified by the conditions obtaining at the time such expenditures were made, but, with the knowledge that the progressive farmers have accepted diversification and are taking advantage of this means of adding revenue to agriculture, and knowing that the bankers and business men everywhere are spreading the gospel of diversified farming, the utilities are carrying on a development that implies absolute faith in the future of the state and betokens a vote of confidence that should encourage all other progressive work.

If Texas can develop its dairy industry to a point that will permit shipment to other states of dairy products in the same quantity they are now shipped into Texas, the dairy farmers will add over \$100,000,000 to their income. It requires no statistician to calculate the value of such a development to business in general. It should be evident that the future prosperity of this state is in a large measure in the hands of the farmer, and if this is true the farmer is in effect a partner in every business institution and the need of full co-operation between business men and the farmers should be apparent.

The Central Power & Light Company in recognition of two of the great needs of this section, has established two additional departments: Industrial Development, and Rural Electrification. The first, to assist in getting industries into the state and developing its natural resources; the second, to co-operate with the farmer and rural customer in an endeavor to extend electric service to the farm and thus lift a burden which lack of the "electric servant" imposes on the rural population; and of even greater importance, supply a convenience that will make the farm a more attractive place to live and encourage the boys and girls to stay on the farm.

Raising \$2,000,000 for Mammoth Cave National Park.

Outlining plans of the Mammoth Cave National Park Association, Louisville, Ky., W. W. Thompson, executive secretary, advises that it is the function of the Association to raise \$2,000,000, with which to purchase approximately 70,000 acres of land in the Mammoth Cave area in Kentucky, including all the caves, which will then be given to the Federal Government and made into a National Park. The development of the area, which is at the junction of the Dixie Highway, running north and south, and the Jackson Highway running east and west, will be in the hands of the government.

The Mammoth Cave National Park was authorized by Act of Congress passed May 25, 1926, authorizing the government to accept, develop and maintain the Mammoth Cave area, the minimum number of acres to be accepted being 46,000. Designated lands are located in Edmonson, Hart and Barren counties, embracing about 25 other cave systems in addition to Mammoth Cave; tracts of virgin timber, hills and valleys and a substantial portion of the Green River. Title to the land will be taken by the Kentucky National Park Commission, created for that purpose by the General Assembly of Kentucky, which has instituted condemnation proceedings for

the acquisition of Mammoth Cave proper and it is thought the court decision as to the price to be paid for this property will largely govern the price to be paid for other cave lands. Subscriptions of \$800,000 were raised in 1928 toward the purchase price of the properties.

Joint Building Code Received Favorably—Studying Further Simplification.

During the past two years, under the leadership of Chairman William F. Zabriskie, the Committee on Engineering Practice of the Concrete Reinforcing Steel Institute has given considerable time and study to technical matters of interest to its members. Perhaps the most important of these subjects was the creation of a Joint Building Code in collaboration with Committee E-1 of the American Concrete Institute. This code was tentatively adopted by both organizations a year ago and considerable promotional work has been done by the Institute and the Portland Cement Association in having it adopted in a number of important cities. The next logical step appears to be the further simplification of this joint code, it is announced, and during the next six months an intensive study to that end will be made.

Southern Pine Association Plans to Stimulate the the Lumber Industry.

[Special Correspondence Manufacturers Record.]

New Orleans, March 30.

One of the most successful years in the history of the Southern Pine Association culminated this week in the fourteenth annual meeting, at which determination was expressed and steps were taken not only to continue, but also to stimulate the constructive work of the organization. The organization was founded on the principle that "the day of the individualist is past—from this time on, men must work together upon more and more subjects in which they have a common interest," and the spirit and practice of co-operation in the industry has meant much to the Nation as a whole, as well as to those directly interested.

So it was that President F. W. Reimers in his address said:

"We have reached a decisive stage in the development of our industry. We must determine whether we will follow the dwindling path pursued by several of the dominant woods of the past, or take advantage of our present strong position."

The members of the Association determined that the industry should not retrogress, but should progress in constructive fashion. Among its achievements, as recalled by Mr. Reimers, "Southern pine is known today as no wood has been before and its merits and uses are correspondingly understood"; the system for grading and inspection is unsurpassed; vital economic information is at the command of the members; the freight rate structure has been zealously guarded; "the most up-to-date and fruitful methods of perpetuating a lumber supply have been developed within our own region."

The industry now is approaching a time when there will be a substantial and constant production of Southern pine; the point at which this production will be permanent is below the present demand for the product, but at a quantity which will assure an adequate supply to maintain Southern pine as "a dominating wood." While the industry has lost some production through mills reaching the end of their timber supply, this was not regarded as indicative of a decreased demand, and the Association will endeavor "to maintain the demand at its highest point."

Following an address, in the nature of a report, by H. C. Berckes, secretary-manager, R. B. White, chairman of the advertising committee, spoke of the productiveness of advertising in the promotion of the Association's work.

"To be effective, advertisements must have two important essentials: They must attract attention, so they will be read, and, equally important, they must impress the reader with the sincerity of the advertiser and the merit of his product," said Mr. White. As to the present campaign, he added:

"Of course, we are not overlooking grade-marking and trade marking: The Southern Pine Association, through the practice of grade-marking, took the mystery out of lumber buying. It has been said that the branding of the grade and the guarantee of the grade by the Association has been the most forward step in the industry in half a century. This fact, added to the unquestionable merit of the product, gives your association a prestige to which any other large industry would give inestimable value.

"We believe that there never could have been a more opportune time to have launched such an outstanding campaign. We are entering a period of unprecedented activity. Grade-marking and trade-marking have received universal commendation and our Association is the recognized pioneer in this movement. Lumber is coming into its own as never before. Ten years ago, there were 2500 uses for wood; today, there are nearly 5000 uses for wood. Southern pine enjoys the enviable position of being acceptable for more of these uses than any other wood. As manufacturers of such a product we should feel the thrill of pride that comes to all men who

are sincerely rendering a great public service, the production of a useful article which in our case is an article that of all things more intimately enters into the life of mankind."

In urging a vigorous continuance of this campaign, Mr. White said that "this is the age of advertised products," and that "buyers of everything grow wiser every day." Price is disappearing as a buying factor, he concluded, and such work as the Southern Pine Association is doing in this campaign is making it less and less a factor in lumber buying.

Officers elected were: F. W. Reimers, Hammond, La., president; M. L. Fleishel, Jacksonville, vice-president; O. O. Axley, Warren, Ark., vice-president; Henry M. Young, New Orleans, treasurer; Joseph W. Bailey, Dallas, chief counsel; H. C. Berckes, New Orleans, secretary-manager.

Directors for the coming year are: Alabama, J. H. Eddy, Birmingham; J. G. McGowin, Chapman; H. H. Patterson of Altmore. Arkansas, O. O. Axley, Warren; A. B. Cook, Malvern; D. C. Gates, Fordyce. Florida, J. S. Foley, Eastport; M. L. Fleishel, Jacksonville; A. N. Foote, Holopaw. Louisiana, F. W. Reimers, Hammond; A. J. Peavy, Shreveport; A. O. Goodyear, Bogalusa; W. T. Murray, Rochelle. Mississippi, J. M. Bissell, Laurel; S. E. Moreton, Brookhaven; Charles Green, Laurel. Missouri, R. B. White, Kansas City; Texas—John H. Kirby, Houston; R. W. Wier, Houston; L. D. Gilbert, Texarkana.

Wheat Ground and Wheat-Milling Products, 1928.

Of the total quantity (113,128,633 barrels) of wheat flour manufactured by mills reporting monthly in 1928 to the Department of Commerce, Minnesota produced 19 per cent; Kansas, 15.1 per cent; New York, 11.5 per cent; Missouri, 8.3 per cent; Washington, 4.6 per cent; Texas, 4.3 per cent; Illinois, 4.1 per cent; and Ohio, 3 per cent. Of the total production, eight Southern states ground 104,940,312 bushels of wheat, from which was attained 22,861,461 barrels of flour and 1,829,099,913 pounds of offal.

At the biennial census of manufacturers, the total output of wheat flour was reported as 118,174,812 barrels (preliminary figures) for 1927 and 114,689,930 barrels for 1925.

SUMMARY FOR SOUTHERN STATES, 1928.

States	Average number of mills reporting	Wheat ground (bushels)	Production	
			Wheat flour (barrels)	Offal (pounds)
Kentucky	27	6,005,726	1,311,238	103,749,962
Maryland	17	1,910,969	404,914	33,349,213
Missouri	74	43,354,278	9,418,497	754,693,892
North Carolina	28	5,823,149	1,258,420	102,671,909
Oklahoma	27	13,076,712	2,870,981	226,361,856
Tennessee	33	7,880,255	1,709,379	139,616,286
Texas	34	22,214,709	4,874,728	387,363,073
Virginia	41	4,674,514	1,013,304	80,793,722
Total*	291	104,940,312	22,861,461	1,829,099,913
United States	1,057	521,447,946	113,128,633	9,105,981,777

*Does not include 4 mills in Arkansas; District of Columbia, 1; Georgia, 4; South Carolina, 2, and West Virginia, 5, statistics for which were not listed separately by states.

Work Soon on 135-Mile Texas Pipe Line.

Petrolia, Tex.—The Lone Star Gas Co., Dallas, will soon begin construction of a 20-inch natural gas pipe line from Petrolia to Fort Worth and Dallas, a distance of 135 miles, according to L. B. Dening, president. The line will have a daily capacity of more than 100,000,000 cubic feet of gas and will give the company four trunk lines into Fort Worth and Dallas, from the fields of Oklahoma and Northwest Texas.

One Way to Promote Diversified Agriculture.

With the greater development of industries utilizing products and by-produce of the farm there can be brought about a greater stability in Southern agriculture. Progress is being made in this direction, for the South has already entered upon a dairy expansion program and it offers possibilities in the canning and preserving of fruits and vegetables of almost unlimited extent. Only recently the W & W Pickle and Canning Co., of Montgomery, Ala., shipped a solid trainload of pickles which probably sets a record for the movement of this commodity in such quantity at one time.

The products from which these pickles were produced were grown by the company on their own preserves, and the company operates its own salting stations in Southeast Alabama

and North Florida, with a capacity of 200,000 bushels. This trainload of pickles consisted of 21 cars containing 172,092 jars; 1776 five-gallon packages; 77 casks and 51 kegs; weighing nearly 1,000,000 pounds, and with a value of about \$60,000. The train was loaded and made up in the yards of the Western Railway of Alabama in Montgomery and moved over the "West Point Route" to Atlanta, where it was delivered to the Southern Railway for distribution to other points in the Southeast, a part of the shipment going as far as New England.

This solid trainload of a Southern manufactured farm product is indicative of the fact that something more than cotton or corn can be utilized as a money crop in this section.



Plant of the W & W Pickle and Canning Co., Montgomery, Ala., and a trainload of its products.



Dairy Development at Columbus, Miss.

Business interests of Columbus, Miss., are actively engaged in promotion of the dairy possibilities of the section, the Columbus Chamber of Commerce having employed C. J. Goodell, a former professor at the Mississippi Agricultural and Mechanical College, to devote full time to co-operation with the farmers. The plan involves the instruction of former cotton farmers in better methods of feeding, in the selection of good cows, the elimination of unprofitable stock, pasture development and other similar problems incident to the establishment of the comparatively new dairying industry. Professor Goodell has had many years of practical experience in dairy farming, both North and South, and is described as a successful teacher of livestock practices. In co-operating with him and the county agent, it is stated that the Kiwanis Club of Columbus has agreed to stand sponsor for 20 boys and girls who will purchase registered calves, the club to aid in financing where necessary, sending committees from the club to the various farms during the year and helping to develop a program. A competitive show will be held in the fall with prizes offered by the club.

In Columbus is located one of the largest cheese factories in the country, the plant owned and operated by A. H. Barber & Co. of Chicago and Columbus. The company also operates another cheese factory at Billups, Miss.

"Mergers and the Law."

Under the title, "Mergers and the Law," the National Industrial Conference Board, Inc., New York, has issued a report in a series of studies of the relation of public policy, as expressed in the Anti-Trust laws, to various aspects of modern business organization and conduct. In this report, the Conference Board carries its inquiry to the question of the relation of public policy to "an older and perhaps more basic type of business organization—the corporate consolidation or merger." The primary purpose of the study was to trace the development of public policy toward such consolidations and to set forth the modifications which it has undergone in recent years and its status at the present time, and the findings are given in this report.

100 Residences for Hopewell, Virginia.

Hopewell, Va.—A contract for the erection of 100 residences here, to cost from \$5000 to \$15,000 each, has been awarded to Allen J. Saville, Inc., Richmond, by the Crescent Hills Construction and Finance Corp., of which M. T. Broyhill, of Hopewell, is president. The residences will be of modern architecture and construction, with hardwood floors, tile baths and built-in features. The M. T. Broyhill Company, Inc., Laurence M. Meyer, managing director, is in charge of the project.

Raleigh Is Active in Building Construction.

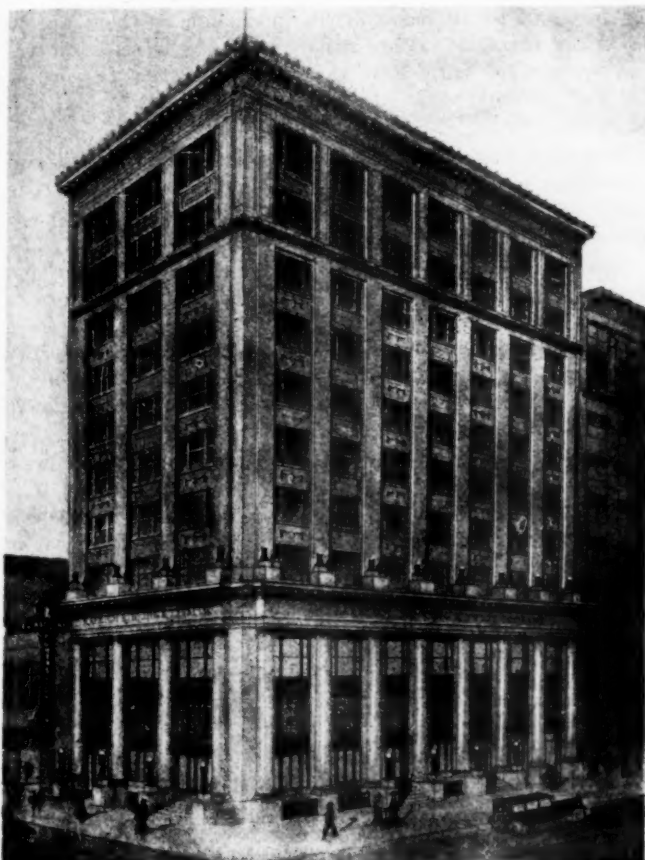
[Special Correspondence Manufacturers Record.]

Raleigh, N. C., March 30.

Numerous substantial structures have recently been completed or are now under way and proposed in this city. Work is progressing on a nine-story addition to the Raleigh Banking & Trust Company building, after plans by H. A. Under-

to begin immediately. Frank Simpson is the architect, and plans will soon be ready for bids.

The Carolina Apartment Hotel Company recently completed a structure with 160 hotel rooms and 40 apartments and three stores, at an approximate cost of \$1,000,000. The Motor Service Company garage, recently placed in use, was built by the Beaman Construction Company, after plans by Lee, Smith & Vandervoort, Richmond, architects. A 150-room addi-



RALEIGH BANKING & TRUST CO. BUILDING AS IT WILL APPEAR WHEN 9-STORY ADDITION IS COMPLETED.

wood, architect; Hudson Construction Company, Raleigh and Tarboro, contractor. The Capital Club building, a 12-story structure, will be erected on the site of buildings now occupied by the club, the work of demolition of existing buildings

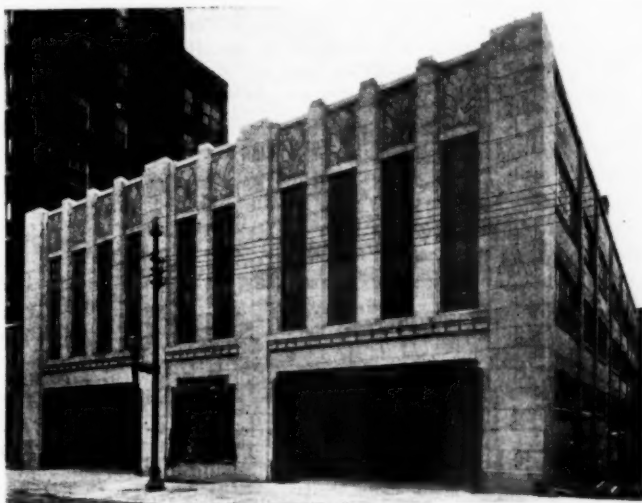


12-STORY BUILDING FOR THE CAPITAL CLUB.

tion to the Sir Walter Hotel is now in use, bringing the total number of rooms to 350. Edward M. Harris, Philadelphia, proposes to erect the Harris Memorial Hospital, with 100 beds, and a site already has been acquired. The Carolina Power & Light Company, with main office here, is pushing work on its big Pigeon River power project.

Contracts Let for Y. M. C. A. Building.

Knoxville, Tenn.—General contract has been awarded to A. R. McMurry, Knoxville, at \$248,500, for erecting the new building here for the Young Men's Christian Association, on which work is expected to start at once. The Knoxville Plumbing Co. was awarded contract at \$43,292, for plumbing and heating, and the Warner Service Co., Knoxville, at \$13,472, for electrical work. The building will be 4 stories and basement, of reinforced concrete and steel, with brick walls and tar and gravel roof. It will contain about 125 rooms. Barber & McMurry, Knoxville, are the architects.



RECENTLY COMPLETED FOR RALEIGH SERVICE CO.

Russia Reported to Be Developing Vast Cotton Growing Empire.

The Russian Soviet Government is developing a huge cotton growing empire for the avowed purpose of becoming independent of the American crop, according to Anna Louise Strong, writing in the New York Herald Tribune. The scene of this huge undertaking in paternalistic cotton growing lies from four to six days journey on the fast express southeast of Moscow, chiefly in the new Soviet republics of Central Asia, though the buyers reach down into Afghanistan and Persia. The enterprise, as described by Miss Strong, is in the form of a great trust. The cotton is grown on vast irrigated areas in Central Asia, including areas that have been cultivated for thousands of years without soil depletion. Chemicals brought down by the river waters used in irrigation keep the soil sweet.

The methods employed by the cotton trust, as described by Miss Strong, are a curious combination of the best of American methods with others distinctly un-American. The same Soviet government that has tried so persistently to force its own subjects to produce without the inducement of individual profit, has adopted in this foreign sphere of influence the most approved capitalistic method, and by way of encouraging the cotton-growing peasants of Asia to increase their production, it guarantees to take their entire crop, and at a better price than they could hope to get in the world market. The vigor with which this policy is adhered to is illustrated by the fact that when in 1926 overproduction of American cotton broke prices to 13 cents and Russian cotton mills would gladly have doubled their purchase of the staple, their government forbade them to buy any from the United States until the entire Turkestan crop had been purchased at the much higher price fixed therefor.

Several features of interest in this Soviet cotton trust are described by Miss Strong. First, the trust is an out and out capitalistic holding corporation. It is capitalized at \$45,000,000; yet land has no place in its assets, since "land is reckoned as nothing" or like air and water. The corporation is the chief stockholder in three subsidiaries: "The Cotton Committees of Uzbekistan, Turkmenistan and Kazakstan, the minor stock being held by the native governments of these new Soviet republics."

The system of price regulation is characteristic of the Soviets. There is no competition, the Russian Soviet being the sole buyer for the crop raised by the 4,000,000 natives. A staff of investigators reports annually on labor cost, family budgets and labor cost in other sorts of farming. The objective is to make a price so attractive as constantly to increase production; the peasants want all they can get. The price finally set is arrived at by collective bargaining between two sides, both intent on making a profit for the farmers, the only argument being on just how great the profit shall be.

Some of the features of the trust that would be understood and largely approved in this country are:

1. A system of scientific experiment stations, maintained at a cost of nearly \$1,000,000 annually. This experimental department boasts a collection of 1500 varieties of cotton plants, from every cotton growing land in the world, some being of a tree variety killed by frost and here grown under glass, for experimentation in cross-breeding.

2. A string of great cotton farms, used as seed selection stations, for providing seed to the farmers. The farm visited by Miss Strong, situated five miles from the city of Tashkent, was a self-contained community made up of 600, including scientists, clerks and farm workers with their families. It had a school, club, central dining hall, motion pictures and many radio receivers. Its facilities are expanding under constant pressure of the growing community. The area of the farm is 300 acres, its annual budget, \$250,000.

This branch of the trust has developed a variety of cotton

that grows further north than any other known variety. "It pays for this hardiness by a short staple and diminished productivity, but is still industrially valuable for the irrigated steppes of Kazakstan," says the writer. She adds that: "Highly productive varieties of long staple are developed for the hot, sun baked oases of Turkmenistan. Others are in process of breeding. Other departments of the selection station experiment with 1600 varieties of lucerne (a sort of alfalfa) as the needed alternative to cotton to avoid crop depletion."

An hour's ride south of Tashkent Miss Strong visited also a fertilizer experiment station, "which studies every possible method of handling soil, and which is divided into 3500 different plots, each of 1800 square feet."

Besides a great variety of experiments in fertilizing and irrigating the soil, this station also sends out expeditions to locate possible supplies of fertilizing minerals, so that these things need not be imported. Evidently the perpetual fertility mentioned above applies only to a limited section of the vast cotton-growing area. Also, they are experimenting with the use of cotton seed refuse in treating as a fertilizer.

"One of the most spectacular properties of the Cotton Trust is the vast farm Pakhta-Aral (or Island of Cotton)," it is said, "15 miles long by three miles wide, where enough seed is produced to supply nearly one-fourth the annual needs of central Asia. It is a new, irrigated farm, carved in the last few years out of what was formerly known as the Hungry Steppe, a great desert region four hours by rail south of Tashkent. Six small townlets, with a population of several thousand, are scattered along its central canal. All these inhabitants are concerned with the growing and picking of cotton."

Apparently the peasants of these cotton farms are being subjected to cultural influences entirely new to them, for Miss Strong says:

"The clubhouse was jammed nightly with meetings of the Women's Club, the Young Communist Club and the drama circle. There were two local orchestras in the central hamlet alone, an art study club and many other study circles. A library of 4500 books, of which more than half were fiction, sent forth traveling sections to supply the other hamlets.

"Three times a week the motion pictures came and on Saturday nights the radio loud-speaker gave dance music for the young folks from the sending station in Tashkent. Eighteen newspapers and fourteen journals are subscribed for by the club library. One of the hamlets maintains a day nursery, and women cotton pickers who have babies are sent to it by preference. Thus rapidly in three years' time has community life been established in Pakhta-Aral, the largest but not the only farm of the Cotton Trust."

There is a dual motive back of the energetic development of the Cotton Trust. No mere altruism for hungry Uzbek peasants enters into it, but rather, says Miss Strong, "the hope of some day being free from the need of enormous cotton imports which yearly strain the balance of trade and affect the stability of the currency. In five or ten years, possibly, they have a chance of doing it. American cotton growers should be prepared for this. Russia protects her infant cotton-growing industry with a protection stronger than anything we have ever used." Further:

"Beyond the economic reason the Soviet government has a political reason also for protecting the cotton growers of Turkestan. Here is the furthest outpost of her empire in Asia. Here is the center of Soviet influence among the yellow-brown native races—the Afghans, the Persians and to some extent even the Chinese and Hindustani.

"Moscow is knitting these natives of Turkestan to her not only by political methods of government and propaganda, but by the firmer bond of close economic interests. The peasant

who gets his seed and implements and even food on credit from the all-embracing cotton trust, and sells his crop to the only buyer, fixing prices through his own co-operative's representative in Moscow, is thus knit intimately, across a thousand miles of nomadic deserts, with the Soviet Republic."

38,155,714 Tons of Pig Iron and Ferro-Alloys Produced in 1928.

According to the American Iron and Steel Institute, production of pig iron for 1928 amounted to 37,401,648 tons and, in addition, 754,066 tons of ferro-alloys were produced, giving a total output of 38,155,714 tons, as compared with 36,565,645 tons in 1927 and 39,372,729 tons in 1926. Pig iron and ferro-alloys produced in the Southern States in 1928 amounted to 4,572,644 tons, as compared with 4,571,055 tons in 1927. The figures by states follow:

States	1927 Tons	1928 Tons	Increase Tons	Per cent
Pennsylvania	11,466,457	12,052,405	585,948	5.11
Ohio	8,407,243	9,017,025	609,782	7.25
Indiana, Michigan	4,199,517	4,583,065	383,548	9.13
Illinois	3,588,463	3,942,412	353,949	9.86
Alabama	2,758,387	2,517,485	*240,902	*8.73
Massachusetts, New York ..	2,615,556	2,366,890	*248,666	*9.51
Maryland, Virginia	941,501	1,028,596	87,095	9.25
West Virginia, Kentucky ..	697,184	862,706	165,522	23.74
Colorado, Utah	613,627	600,366	*13,261	*2.16
Wisconsin, Minnesota	455,727	339,267	*116,460	*25.55
Tennessee	114,570	91,431	*23,139	*20.20
Total pig iron.....	35,858,232	37,401,648	1,543,416	4.30
Ferro-alloys:				
Pennsylvania	363,142	370,197	7,055	1.94
New York, New Jersey	159,795	195,825	36,030	22.55
Ohio, Illinois, Iowa, Michi- gan, Colorado	125,063	115,618	*9,445	*7.55
Virginia, West Virginia, Alabama, Tennessee	59,413	72,426	13,013	21.90
Total ferro-alloys	707,413	754,066	46,653	6.59
Grand total	36,565,645	38,155,714	1,590,069	4.35

*Decrease.

British Cotton Shipments.

Manchester, England, March 13.—Exports of cotton yarns and manufactures from the United Kingdom during February amounted to £11,828,492 and the total of manufactured articles to £44,323,591, compared with £13,820,585 and £53,842,638 in January, and £11,896,493 and £45,476,712 in February, 1928. For the two months ended February the figures were £25,649,077 and £98,166,229 against £25,104,178 and £93,764,992 in 1928.

Shipments of cotton piece goods in February totaled £8,761,672 representing 326,069,800 square yards, compared with £10,291,120 and 379,342,300 square yards in January, and £8,836,309 and 316,199,900 square yards in February, 1928. For the two months ended February the exports were £19,052,792 and 705,412,100 square yards against £18,570,210 and 653,606,000 square yards in 1928.

Cotton yarns shipped in February were valued at £1,755,835, the weight being 13,707,000 pounds. In January the figures were £2,223,235 and 16,923,900 pounds, and in February, 1928, £1,898,961 and 14,491,400 pounds. During the two months ended February the exports were £3,979,070 and 30,630,900 pounds, compared with £3,905,974 and 29,385,600 pounds in 1928.

Bids Invited on \$1,000,000 Jackson Building.

Jackson, Miss.—Bids will be received until April 15 by the Pearl Realty Co., E. G. Flowers, president, for the construction of the new \$1,000,000 Jackson Tower Building of 22 stories. The structure will be of reinforced concrete and brick with terra cotta or stone trim, and will have set-backs at the thirteenth, fifteenth and seventeenth floors. Three high speed, signal control, elevators will be installed. Claude H. Lindsley, Jackson, is the architect and Gardner & Howe, Memphis, Tenn., structural engineers.

\$300,000 MILK CONDENSERY FOR SCHULENBURG, TEX.

Carnation Milk Products Company to Build Its First Plant in That State.

According to advices from Schulenburg, Texas, the Carnation Milk Products Co., Oconomowoc, Wis., will begin construction at once of its first Texas plant at Schulenburg. A condensery will be constructed of reinforced concrete, 100 by 300 feet, at a cost of approximately \$300,000, including equipment. R. O. Heszey, chief engineer of the company, wires that the Construction Department of the company will handle all work.

Schulenburg was selected for the location of the plant after friendly competition on the part of a number of other Texas communities, it is said, and was chosen primarily because the surrounding district offers a large and sure supply of milk. Fayette County, in which Schulenburg is situated, is said to have more than 12,000 dairy cows, with an annual milk production of 2,500,000 gallons.

\$10,371,000,000 Value of Southern Manufactures in 1927.

Preliminary census figures by states for 1927 show that the manufactured output of the South amounted to \$10,371,793,000. More than \$6,089,000,000 is expended by Southern plants for the purchase of materials and fuels and power each year, which indicates the enormous buying power of the industrial South. There were 37,851 manufacturing establishments covered in the census report and the average number of wage earners employed for the year was 1,679,798. The value added by manufacture in the South, the value of products less cost of materials, etc., amounted to \$4,282,295,000 in 1927. The tabulation by states follows:

MANUFACTURING IN THE SOUTHERN STATES, 1927.

States	Number of establish- ments	Wage earners (average for the year)	Cost of materials, fuel and power	Value of products
Alabama	2,355	119,093	\$317,493,407	\$550,372,126
Arkansas	1,146	40,032	103,815,280	182,750,871
Dist. of Col.	503	9,519	36,098,635	90,389,537
Florida	1,912	61,219	91,715,524	218,790,152
Georgia	3,175	154,168	360,261,684	609,917,060
Kentucky	1,851	74,912	250,632,957	447,764,061
Louisiana	1,625	82,415	427,994,341	638,361,215
Maryland	3,205	126,700	564,120,437	943,040,896
Mississippi	1,333	50,569	105,559,493	196,640,742
Missouri	5,422	195,378	1,004,709,373	1,665,173,463
North Carolina	2,984	204,590	560,819,236	1,154,646,612
Oklahoma	1,373	27,932	269,418,221	371,718,409
South Carolina	1,059	108,992	206,772,453	358,334,205
Tennessee	2,098	114,968	351,436,325	614,040,524
Texas	4,065	116,763	842,927,286	1,206,570,962
Virginia	2,432	114,918	346,165,769	671,346,808
West Virginia	1,313	77,630	249,558,180	451,555,334
Total South.	37,851	1,679,798	\$6,089,498,601	\$10,371,793,477

Big Cattle Ranch for Central Florida.

What is said to be one of the biggest cattle deals in many years in central Florida was reported by the Tampa Tribune recently when A. B. & D. B. Kibler leased a large acreage from the American Agricultural Chemical Company, in southwestern Polk County, and purchased upwards of 20,000 head of cattle. The price reported is from \$18 to \$20 per head, said to be a record for stock cattle. The largest single purchase is stated to have been made from the Hollingsworth stock at Arcadia, where between 8,000 and 10,000 head were bought. The ranch is being started at a time when prices for cattle have been high for two years, and it is reported that a good many cattle men who refused to sell their stock stated they were merely awaiting lower prices to increase their own herds.

Letters From Our Readers

EQUAL PROTECTION TO ALL.

Interesting Statements in Regard to "Opportunity."

Howard Kenyon Dredging Company.

Houston, Texas.

Editor Manufacturers Record:

In a recent issue your article "Protect All or None," struck me as being the very keynote of success for the United States, and I want to compliment you on that motto.

The idea of a selfish Eastern manufacturer having all raw material he desires to import by reason of cheap foreign labor and then his goods protected by a high tariff, is about the most selfish thing that I ever heard of.

I note in hearings at Washington on the tariff question that the president of one of the largest manufacturing concerns in the United States said he understood the principle of the Republican party was: No tariff on raw material and a high protective tariff on manufactured goods.

The South is suffering from competition on raw materials, products of both the ranch and the mine, and until we can protect all or none we cannot have the success in this country that we are entitled to.

I note also in that same issue you quote Senator John J. Ingalls' poem "Opportunity." Mr. Ingalls during his lifetime never denied or admitted the authorship of his poem, but in memoirs published after his death he told how on a visit to Rome, while he was on the Appian Way, a tombstone or marble slab was unearthed and on this slab in Latin was this poem that so many people give him credit for. He is entitled, as he says, only to the translation. That poem hangs over my desk, also the poem of Judge Walter Malone of Tennessee, and I never visit Memphis without strolling by and again reading on the bronze slab erected by the women of Memphis, his poem which is over my desk as I write.

I am wondering where you got the version of this poem as you have published it. Of course, you left out two of the sweetest verses in the poem, but those you have quoted are either incorrect or the version I have, which I purchased in Memphis, is wrong, and I am asking you to enlighten me.

I note in the second verse, first line, you have it:

"Wall not for perished chances passed away."

while the verse I have is:

"Wall not for *precious* chances passed away."

In the third verse you quote:

"When down in mire, wring not your hands and weep," while on the bronze monument in Memphis, it reads:

"Though *deep* in mire, wring not your hands and weep."

In the fourth line of the same verse, my version reads: "But yet might rise again and be a man." while you quote it:

"But yet might rise and be again a man."

I am wondering if my copy is right. Please advise me.

HOWARD KENYON, President.

[The MANUFACTURERS RECORD is glad to have these statements in regard to the two poems mentioned. Our copy of Judge Malone's poem was the version published in a Tennessee paper shortly after the poem was written. We will investigate immediately to get the facts as indicated in Mr. Kenyon's letter.—Editor MANUFACTURERS RECORD.]

Since the foregoing was put in type we have received from Mr. Kenyon a full corrected copy of Judge Malone's poem. It reads thus:

Opportunity

By WALTER MALONE.

They do me wrong who say I come no more,

When once I knock and fail to find you in;

For every day I stand outside your door

And bid you wake, and rise to fight and win.

Wall not for precious chances passed away,

Weep not for golden ages on the wane!

Each night I burn the records of the day—

At sunrise every soul is born again!

Laugh like a boy at splendors that have sped,

To vanished joys be blind and deaf and dumb;

My judgments seal the dead past with its dead,

But never blind a moment yet to come.

Though deep in mire, wring not your hands and weep;

I lend my arm to all who say "I can!"

No shame-faced outcast ever sank so deep

But yet might rise again and be a man!

Dost thou behold thy lost youth all aghast?

Dost reel from righteous Retribution's blow?

Then turn from blotted archives of the past

And find the future's pages white as snow.

Art thou a mourner? Rouse thee from thy spell;

Art thou a sinner? Sins may be forgiven;

Each morning gives thee wings to flee from hell,

Each night a star to guide thy feet to heaven.

Disapproves Jadwin Flood Control Plan.

Greenville, Mississippi.

Editor Manufacturers Record:

Since proper flood control is vital to our national welfare and is the controlling factor in the destiny of a large and fertile area, and since the Jadwin scheme seems infested with more evils than virtues, stimulation of thought among our own Southern people as to our real needs seems very important. The nation apparently is willing to give us what we want, but we have not yet tried to decide what we want. As beneficiaries, our people should guard against an orgy of money-spending on a scheme that at least bears no marks of genius, or promises necessary relief.

The wisdom of Roosevelt in over-riding the engineers at Panama is unquestioned. Moreover, Jadwin has no such record behind him as those engineers had; certainly, he is not more capable. He advises higher levees, advice we have followed for 75 years and which led us into many destructive floods. Levees are too high now, because the great pressure from such a high wall of water frequently undermines and breaks the levee from beneath. Also, because this big river at flood tide concentrates its wild waves, whirlpools and cross-currents against a given section of levee that is weakened by weeks and months of heavy strain, human efforts are too often of no avail. His proposed spillways mean one or several annual floods over large areas, any time from Janu-

ary to June. The responsibility is too great for one engineer.

Moreover, General Jadwin is not removing the danger of floods, and this danger must be removed, and the only way to remove it is to provide a way to get surplus water to the Gulf quickly and effectively. Thus, the ship canal scheme is the only such solution yet suggested. Its proponents claim that such a canal can be dug through alluvial land with modern machinery at reasonable cost. Digging it and concreting the sides and flooring the bottom with rock asphalt or concrete would not cost more than three times the 1927 flood; the distance would be less than 40 per cent, and water now requiring two weeks or more would then reach the Gulf in less than two days, thereby solving permanently the flood problem. The locks and dams necessary to control the current for navigation could be made the source of electric power many times as great as Muscle Shoals and would bring here many millions of wealth.

Probably, \$2,000,000,000 would complete it. The vessel tolls, and sale of power would easily meet the bonds for construction, making it a paying business venture; whereas, Jadwin's scheme will cost at least half as much, will be a continued dead expense, a constant source of legislative strife, and will get us nowhere in industrial growth. At best, the period between floods will only be lengthened. The most glorious opportunity that ever faced any people is facing the citizens of the Mississippi Valley. What will we do about it?

V. A. DENSLOW.

IRON, STEEL AND METAL MARKET

Steel Industry Maintains Its Momentum.

Pittsburgh, April 1—[Special.]—The rate of steel production has not increased further in the last fortnight, but it has not decreased. There was virtually no room for further increase as substantially all the open-hearth capacity was already active, slackness being in Bessemer steel with no chance of demand for this grade increasing. About 95 per cent of the total steel making facilities have been operating. Steel ingot production last quarter was about 11 per cent above that in the same period of last year, although that was record high in its time by a small margin.

Shipping orders have been very heavy indeed in the last three weeks, chiefly in bars, sheets and strips. These orders were largely in the form of specifications against contracts for the first quarter, most of these contracts carrying a stipulation that specifying be completed by March 15. There has been only a moderate amount of contracting for the new quarter. In the lines mentioned this has been at advanced prices but as consumers will be receiving deliveries for weeks on the old engagements the new prices will receive no serious test for some time. Should the open market fail to work up to the higher level, consumers would withhold specifications until they secured an adjustment.

Automobile production was at a higher daily rate in March than in February and indications are that there will be a somewhat higher rate still this month. There was about 25 per cent excess in automobile production in the first quarter over normal expectation based on last year's total output and allowance for the usual seasonal variation. From one angle this extra output seems large, but from another angle it is observed that it represents less than two-thirds of a month's production, perhaps meaning little but the difference between cars waiting for buyers and buyers waiting for cars.

Fabricated structural steel lettings reported last week totaled 43,500 tons. From these unofficial reports it appears that lettings ran considerably higher last month than the average of the five preceding months, yet that average was quite a fair one. Much new work is in sight.

The New York Central, on inquiries pending for several weeks, has bought 4,500 freight cars, making about 43,500 cars bought since January 1. The Erie has had inquiries out for 2,500 cars for several weeks and it is rumored in various quarters that the Union Pacific is about to issue a large inquiry. It did not participate in the buying movement of Western roads in the last few months.

The common view is that the steel making industry, after having made a new first quarter production record by more than 10 per cent, enters the second quarter of the year with unusually strong momentum. There is no important favorable news as to steel buying at the moment, but there is nothing unfavorable, and the steel consuming industries all seem to have as good prospects as formerly, always with the allowance for seasonal variation. On an average, automobile production has reached its peak rate about May 1. The agricultural implement industry seems certain to maintain its record pace to July 1 while it is predicted the summer lull will be milder than usual.

Lake Superior iron ore prices for the season have been established by sales of about a million tons, at 25 cents advance over the uniform price in the last four seasons, Mesabi non-Bessemer ore being now \$4.50 at Lake Erie docks.

Valley pig iron is held at recent advances to \$18.50 for Bessemer and malleable and \$18 for foundry, while basic is somewhat in doubt and may be quoted at \$17.50 to \$18, the valley-Pittsburgh freight being \$1.76.

Rail production last year is reported at 2,647,493 gross

tons, the smallest output in four years, while record output was 22 years earlier, 1906 showing 3,977,887 tons. Meanwhile total steel production has greatly increased. There is an illustration of the necessity of steel producers carrying large reserves for new construction to meet changes in the character of demand. The recent and present swing from welded to seamless tubular goods is another illustration.

Metals Calm Down Slightly.

New York, April 1—[Special.]—The metals as a class have been calmer than during preceding weeks. Copper has apparently found its level for a time at least at 24c per pound, delivered to the Connecticut Valley, and 24½c c. i. f. European ports. Lead demand is still very brisk, but it, too, is moving in more orderly fashion and recent price advances are being digested before fresh ones are made.

It has been zinc's turn to rise in price. On Wednesday the quotation was marked up \$4 per ton to 6.80c per pound, East St. Louis, though some producers would not sell as cheap as that. The zinc ore price was marked up \$1.50 per ton a week ago Saturday to \$42.50 in the tri-State district, the sharpest rise in many months. Wednesdays seem to be the day of the week in which slab zinc rises, it having been a week ago last Wednesday that the metal trade was startled by an advance of \$5 per ton.

Tin has been fluctuating rather aimlessly at under 49c per pound, heavy sales having been made on the National Metal Exchange. The price of antimony has come down somewhat after the feverishness of the previous week. Metal was available by the middle of the week at 9½c per pound, duty paid, as against 9% as the week started.

There have been no important price changes in the other minor and precious metals. Quicksilver still sells at \$124 per flask, and though \$123 is quoted occasionally, it is difficult to buy at that figure, once a consumer shops around.

The steel industry continues to set a brisk pace for the non-ferrous metals. Steel operations increased a little over the past week though operations are at virtually full practical capacity, which is about 95 per cent of theoretical capacity. Steel observers believe that they see signs of some ebbing in the influx of orders, as is customary for this time of year and this is also an indication that perhaps the peak of consumption of the non-ferrous metals is also at hand.

During the first half of the week copper demand was fair, yet very tame by comparison with the few weeks immediately preceding. By the middle of the week demand had become stagnant, the duller in several weeks. Consumers were puzzled by the behavior of the stock market and were beginning to wonder whether the price of the red metal will not be coming down as rapidly as it rose. Copper metal and the copper shares on the New York Stock Exchange have been very closely intertwined this year and what affects one has an important bearing on the other. Most copper observers believe that prices will still advance a little more before the inevitable decline sets in. It is expected that books for August shipment will be opened this week with the arrival of April and that may bring in another rush to buy and send prices up a little more, yet few believe the price will get above 25c per pound.

It is interesting to observe that the present price of copper is the same as that of aluminum, a metal which is most likely to be substituted for copper, since it, too, resists corrosion and is a good conductor of electricity. Meanwhile several companies are searching for satisfactory substitutes and the producers are somewhat worried lest the goodwill which they have built up in copper through the Copper and Brass Re-

search Association and other agencies will be nullified. Monel metal is also said to have been used recently as a substitute for copper alloys.

There was an interesting rumor afloat in the Lake Superior copper region to the effect that a group of German copper users had approached one of the leading copper mines in that district to contract for a full year's production, to be shipped exclusively to these German consumers. Meanwhile it is announced that a new copper refinery is to be built at Sudbury, Ont., by the International Nickel Company and various associates. It is in fact new refineries which the industry most needs. The mine and blister production are ample, refineries being the bottle necks which hold back the production.

On lead the American Smelting & Refining Company still quotes 7.75c per pound, New York, but only to regular customers, and as high as 8 1/4c per pound has been paid by less favored consumers. In the Middle West 7.65c to 7.90c have been the going levels. Demand for lead holds up very well and comes from all lines of consumers. Producers have opened books for May shipments.

Zinc prices are 6.80c to 6.85c per pound, East St. Louis. It is believed that the ore price will soon be marked up more, this time to \$44 per ton in the tri-State district, in which case slab zinc may advance further. Demand from the brass industry is better than from the galvanizers.

The tin market which started out in step with the other metals about ten days ago when they were advancing, has rather flopped and prices have been back within 1/4c per pound of the low of the year. However, at the close of the week prices were near 49c.

Pig Iron Sales Not As Active As Expected Under Reduced Price.

Birmingham, Ala., April 1—[Special.]—Southern pig iron is finding its way into the Ohio river territory at the \$15.50 price, No. 2 foundry. Competition with the Ohio furnaces is met under the prevailing price here and current report is that considerable tonnage will be taken on for delivery during the second quarter if it is to be had in that territory. The new quarter is starting in with quite a little tonnage of iron sold but not as much as was believed would be contracted for by consumers when the reduced price was announced. It is evident, however, there will be warrant for continued active make of iron and eleven blast furnaces will be kept on foundry iron, with six or seven on basic and one on special brand. Practically all of the furnace interests here are in position to fill orders for both basic and foundry iron. All interests are on the open market, including the steel making companies.

A slight reduction in the surplus foundry iron is reported for the past month. The Republic Iron & Steel Company made a record with its No. 2 blast furnace at Thomas.

Active shipment of cast iron pressure pipe is under way, more territory reporting weather conditions now favorable for pipe laying or soon will be. Pipe stock worked up during the past few weeks will not last long under the heavy outward movements, the spring activity now setting in. There is improvement also noted in foundries and machine shops; in fact, survey of pig iron melting circles indicates there will be active melting for some time. With the tonnage to be moved into the Ohio river territory, Southern iron should enjoy a splendid demand from now on.

Larger producers of foundry iron reiterate a belief that the lower price on iron will not continue long. Consumers have already ascertained that the market is not weak so far as the price base is concerned; to the contrary, sales for the second quarter will be made at the old price \$16.50, No. 2 foundry, and perhaps at a higher price.

Collaboration of statistics as to pig iron production in

Alabama during March is now under way with indications that a larger tonnage was made than in January, which was the best month in a year. If production is kept up through the year as is noted for first three months, it is not improbable that 1929 will see the record in this state almost reached. The furnace output can be increased over present figures, if it is desired, two blast furnaces being in shape while one or two furnaces are not producing to the limit.

Steel mill operations in the Birmingham territory continue at 85 per cent capacity, perhaps a little better. Gulf States Steel Co. has been operating all six of its open hearth furnaces for the past few weeks; also its bar mill on day and night turn. With few exceptions, all the open hearth furnaces of the Tennessee Coal, Iron & Railroad Company at its Ensley and Fairfield steel mills are in operation. Demand is reported active in the greater number of shapes, wire and nails and rails being given as exceptions. Steel fabricating shops have been receiving contracts for small tonnages, just enough to keep the shops active. Several specifications of more or less size have been reported recently. Ingalls Iron Works Co. has started delivery of structural steel for the new car works of the Pullman Car & Manufacturing Corporation at Bessemer, upwards of 3500 tons of steel to be used on this job. McClintic-Marshall Co., Pittsburgh, are placing structural steel on the Dixie plant for the Goodyear Tire and Rubber Company at Gadsden.

The coal industry continues to lag and with warm weather setting in, the prospects are not so bright. Coke is still quite active with the price-base stated at \$5, f. o. b. ovens, foundry coke. There is yet a little tonnage of Southern coke moving into the Ohio river territory.

The visits to Birmingham recently of Harvey S. Firestone, president of the Firestone Tire & Rubber Co., and William O'Neill, president of the General Tire & Rubber Company, have aroused interest in the possible locating of further tire and rubber plants in this state.

George Case, chairman of the board, and Roy Smith, vice-president of the Lamson & Sessions Bolt Co., Cleveland, O., in Birmingham the past week announced plans drawn and work to be started at once on a bolt, nut and rivet plant here, \$500,000 to be expended. The Lamson & Sessions concern is one of the oldest and largest in its line.

Scrap iron and steel holds firm. The lower pig iron price has not brought about weakness. Heavy melting steel is selling, best quality, at more than \$12.50.

PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$15.50; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$16.00; iron of 2.75 to 3.25 per cent silicon, \$16.50; iron of 3.25 to 3.75 per cent silicon, \$17.00.

OLD MATERIAL.

Old steel axles	\$17.00 to \$18.00
Old iron axles	17.00 to 18.00
Old steel rails	13.00 to 14.00
Heavy melting steel	10.50 to 12.50
No. 1 cast	14.00 to 15.00
Stove plate	12.50 to 13.00
No. 1 railroad wrought	10.00 to 11.00
Old car wheels	12.00 to 13.00
Old tramcar wheels	13.00 to 14.00
Machine shop turnings	8.00 to 9.00
Cast-iron borings	8.00 to 9.00
Cast-iron borings (chem.)	13.00 to 13.50

Dallas Terminal for New Airline.

Announcement of a passenger airline between Dallas and Columbus, Ohio, to open in May, has been made by H. E. Barber, vice-president of Universal Air Lines and president of Continental Air Lines. Trimotored, 12-passenger cabin type Fokkers will be used between Dallas and Columbus, and the route will include Little Rock, Memphis, Nashville, Louisville and Cincinnati. Flying time between the terminals is estimated at nine hours and the start will be made from each end at 8 A. M. Transfers may be arranged, to carry passengers from Dallas on to El Paso and California, or south to San Antonio, Brownsville and Mexico City.

AVIATION, AIRPORTS AND AIRWAYS

Three Aeronautic Companies Are Merged.

Formation of the Allied Aviation Corporation, Inc., a \$5,000,000 holding company with headquarters in St. Louis, designed to own all the capital stock of three companies producing airplanes, aviation accessories and aircraft engines, has been announced in St. Louis by John A. Love, head of Love, Bryan & Co. Two of these have been on large scale production for the past eight months or more. The three are: Lambert Aircraft Corporation, a newly formed corporation which has acquired all the assets of the Mono-Aircraft Company of Moline, Ill.; Aviation Accessories Corporation, producer of a new device as well as various other parts, and Hurricane Aircraft Engine Company, which has acquired the assets of the aircraft engine division of the Velle Motor Co.

Pan-American Airways Enlarges Fleet.

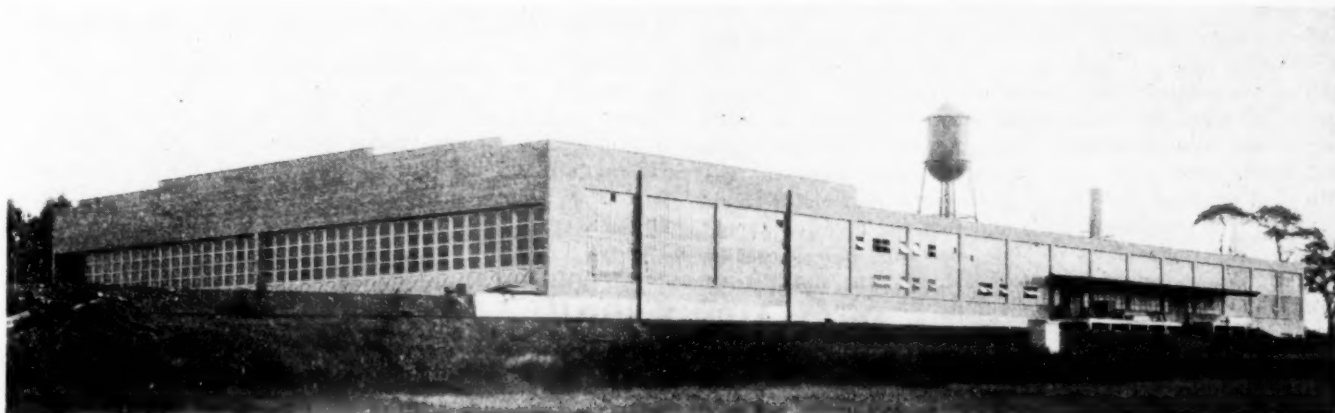
Recent purchase of 10 bi-motored amphibian planes by Pan-American Airways, Inc., which operates largely in the South, is said to bring the company's fleet to 58 planes, representing an investment of \$2,500,000 in flying equipment for its international airmail and passenger lines. Pan-American Airways has mail contracts with the United States for the West Indies, Mexico, Nassau and the Panama Canal Zone and on the South American airlines of Pan-American-Grace Airways,

Inc., an affiliated company. Six airliners, including four tri-motored planes and two bi-motored amphibians, are to be delivered to Miami and Brownsville, the United States terminals of the international system. Among the manufacturers with whom Pan-American Airways has placed orders for its fleet are Ford, Fokker, Sikorsky, Keystone-Loening and Fairchild. J. T. Trippe is president and general manager of the Pan-American Corporation.

Novel Air Target Tests in Virginia.

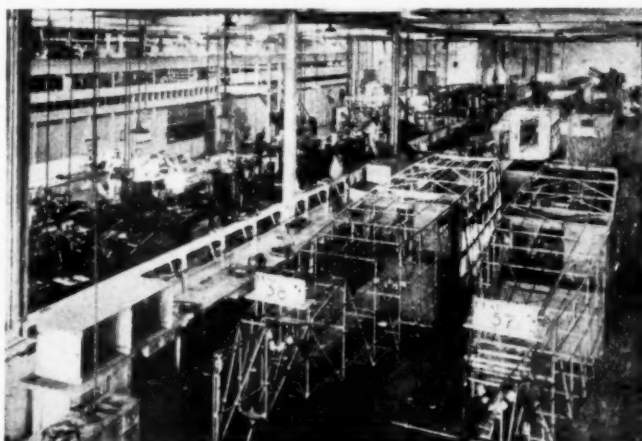
The War Department has approved the concentration of the Sixty-first and Fifty-second Coast Artillery, anti-aircraft, at Fort Story, Cape Henry, Va., for a period of about one month commencing April 1. The regiments will conduct their annual target practices by firing at aerial targets towed by airplanes, and will be given the first opportunity that any anti-aircraft artillery has had to fire at "glider" targets. These targets are small motorless airplanes which are carried aloft by and launched from regular airplanes, and which have special controls that can be set so as to permit the gliders to reproduce the movements of an airplane as they glide to earth. About May 1, part of the two regiments will be sent to Langley Field, to engage in the defense of an airdrome.

New Fokker Aircraft Plant Opened.



WHEELING PLANT UNIT NUMBER 1, FOKKER AIRCRAFT CORPORATION OF AMERICA.

The Fokker airplane plant recently put into operation by the Fokker Aircraft Corporation at Glendale, near Wheeling, W. Va., is only the first unit of what is planned to be a factory of 200,000 square feet floor space. This first unit is 200 by 400 feet, giving a floor space of 80,000 square feet. It is typical one-story factory construction, with very large window area, brick walls and concrete floor. The plant is designed to build planes having a wing spread of 80 feet, each of the two doors opening onto the runway being 100 feet wide.



AN INTERIOR VIEW.

Other units, when added, will be designed for larger craft, the maximum width of door now planned being 150 feet.

The flying field where all new planes will be tested is 600 by 4000 feet, and is considered an important addition to the small list of fields in the mountain section. As it is almost in a line with Washington and Dayton, Ohio, and about midway between them, the company expects that the field will be used frequently by cross-country fliers, and extends a welcome to all visitors.

GOOD ROADS AND MOTOR TRANSPORT

PUTTING 100 MILES OF AUTOMOBILES ON HIGHWAYS EACH WEEK.

Road Usage Rapidly Increasing—Need Seen for Greater Road Mileage.

By E. E. DUFFY.

Motor car purchasers are adding to the highway burden at the rate of 100 miles of new automobiles weekly. At the end of 1929 the combined length of trucks, buses and passenger cars will be approximately 65,000 miles.

In addition to the replacement of about 2,000,000 worn out cars, automobile manufacturers expect to place new cars in the garages of another 2,000,000 owners.

Records kept by state highway officials, park officials, health resorts and countless tourists camps reveal that motor car usage is increasing at an even faster rate than registration figures. This means that the highways are carrying a tremendous volume of traffic that as yet shows no sign of lessening its growth.

Last year 44,000,000 people spent more than \$3,500,000,000 "seeing the country." Touring is only a small part of the highway story, but it is indicative of the pleasure use of the car. With buses of one company alone now carrying passengers over routes totaling 100,000 miles, and with bus line investments at about the half-billion-dollar mark, it is evident that commercial motor transportation is more than a mere rumor.

As for the matter of highways over which the nation's 100,000,000 or so rubber tires are running, there are still no more than 80,000 miles of roads that can be rated as first class.

More money must be spent for permanent highway improvements, highway officials and authorities all over the country are pointing out. Better use can be found for funds now being spent for maintenance and construction of roads that cannot cope successfully with the tons of shifting traffic that hurtle over them. In many instances those charged with road planning have failed to recognize that motor transportation is a permanent thing and that the highway should also be as permanent as possible, else this and succeeding generations will continue to pour cash into the sink hole of maintenance and periodical rebuilding.

An automobile mileage of 65,000 does not compare favorably with a first class road mileage of 80,000.

\$1,500,000 Virginia Bridge Building Program.

Richmond, Va.—Virginia's bridge building program for 1929 will involve the construction of about ten large steel and concrete bridges and 50 smaller structures at a cost of approximately \$1,500,000, according to officials of the State Highway Department. The larger structures will be built across New River at Jackson Ferry, Wythe County; Big Otter River, Bedford County; Tinker Creek, Roanoke County; Staunton River, at Brookneal, Campbell County; Appomattox River, between Amelia and Chesterfield counties; over Meherrin River and over Great Creek in Brunswick County; Pagan River at Smithfield in Isle of Wight County; Shenandoah River at Berry Ferry in Clarke County, and widening and rebuilding Bottoms bridge over Chickahominy River, between Henrico and New Kent counties. The New River bridge at Jackson Ferry will be 890 feet long with a 400-foot span, while the Staunton River bridge at Brookneal will be 1190 feet long and the Shenandoah River bridge, 1200 feet. For the most part, the smaller bridges will be of concrete, varying in length from 20 to 150 feet.

West Virginia Asks Bids on 122 Miles Roads.

Charleston, W. Va.—Bids will be opened April 25 by the State Road Commission for the construction of 18 road projects covering a total of approximately 122 miles. The proposed work will include five projects embracing a total of 32.6 miles of bituminous macadam, 7 calling for a total of 43.7 miles of grade and drainage construction, 3 calling for a total of 28.4 miles of cement concrete, 2 for 5.5 miles of grading and graveling and one for 12 miles of stone base course.

\$1,000,000 Road Bonds Voted by Tennessee County.

Dyersburg, Tenn.—A third \$1,000,000 bond issue has been voted by Dyer County for constructing approximately 200 miles of gravel roads, which will give practically every farm in the county an outlet by an improved highway. The county will have about 500 miles of hard-surfaced roads upon the completion of its present program.

\$4,000,000 Tennessee Bridge Bonds Sold.

Nashville, Tenn.—A syndicate composed of the Bankers Company of New York; Lehman Brothers; Hannahs, Ballin & Lee; Sinclair, Wallace & Co., all of New York; Ames, Emerich & Co., Inc., Chicago; Estabrook & Co. and E. H. Rollins & Sons, Boston, Mass., and the Detroit Company, Detroit, Mich., submitted a bid of 101.15, the highest offer for the purchase of \$4,000,000 State of Tennessee bridge bonds.

\$400,000 Road Bond Election in Texas County.

Raymondville, Tex.—Willacy County commissioners called an election for May 16 on a bond issue of \$400,000 for the construction of hard-surfaced roads in the Lyford precinct. A proposed new route would connect the Turner tract in Hidalgo County, running eastward through the South central part of Willacy County, thence southeasterly to Paso Real on the Arroyo below Rio Hondo.

\$4,000,000 Road Bond Bill Passes Maryland Legislature.

Annapolis, Md.—With the passage by the House of Delegates of a bill calling for a \$4,000,000 bond issue for special road construction, the Maryland Legislature finally approves an emergency measure providing for the construction of a number of important road projects in the state. Among these will be the widening from 20 to 40 feet of the Washington-Baltimore boulevard from Baltimore to Savage, Md.; construction of spur roads leading from the boulevard into Rhode Island avenue and Sixteenth street, Washington; construction of highway connecting Calvert County with the Crain highway; widening 25 miles of the National highway through Western Maryland; building 22 miles of Eastern Shore boulevard to connect the proposed terminal of the Claiborne-Annapolis ferry on Kent Island with the upper section of the Eastern Shore at Hillsboro, and the construction of approaches and roads leading to the proposed Chesapeake Bay bridge which will cross the Bay from a point near North Point on the western shore to a point near Tolchester on the eastern shore of the bay.

An election has been called for April 20 on a bond issue of \$400,000 for the construction of roads in Willacy County Road Improvement District No. 1, A. B. Crane, county Judge, Raymondville, Tex.

TEXTILE

50,000-Spindle Goodyear Cotton Mill for Rockmart, Ga.

Project to Embrace 400 Dwellings—Estimated to Cost \$5,000,000—Southern Activities of Goodyear Company Grow.

The Goodyear Tire & Rubber Co., of Akron, Ohio, through C. Slusser, vice-president and production manager, announces a 50,000-spindle mill will be built at Rockmart, Ga., 14 miles north of Cedartown, Ga., where the Goodyear Clearwater Mills are located. The new mill will occupy a site of 350 acres, which the company has purchased, and will afford space for a mill village of 400 dwellings to be erected. The enterprise will employ 1100 operatives and is expected to be ready for operation by the fall. Plans for the new mill, estimated to cost \$5,000,000, are reported being prepared by Robert & Co., Inc., of Atlanta.

Southern construction activities already under way for the Goodyear Tire & Rubber Co. involve the enlargement of the Clearwater Mills at Cedartown, Ga., by the addition of 18,000 spindles which will bring the total spindleage to 50,800. The company also will build 80 additional dwellings for operatives at Cedartown, expending a total of approximately \$1,000,000 there. It has recently awarded contract for a \$7,500,000 tire manufacturing unit at Gadsden and has awarded contracts through the Gadsden Land & Building Corp. for approximately 500 dwellings for operatives and executives of the Gadsden enterprise. In addition to the tire factory, the company also will build a \$1,000,000 rubber reclamation plant at Gadsden.

\$1,000,000 Textile Mill Planned in Texas.

New Braunfels, Tex.—Organized by James McDowell and associates, the Fine Goods Mills, with Mr. McDowell, president, San Antonio, plan to build a \$1,000,000 mill here for the manufacture of cotton, silk, mohair and woolen goods. A site of 12 acres on the Comal River has been purchased for the enterprise, which will consist of a weaving mill, 396 by 200 feet, equipped with 12,610 spindles and 232 looms, for a weekly production of 50,000 yards, and a silk spinning mill 290 by 85 feet, to be equipped for a weekly capacity of 1600 pounds of silk yarn. The company plans also to establish a wool-scouring plant for handling Texas wools.

\$100,000 Addition to Cotton Mill.

The Greenville (N. C.) Cotton Mills, M. R. Long, treasurer, advise that the company plans to build a 110-foot addition to its mill and install twistors, spoolers and warping machinery. The cost is estimated at \$100,000. This mill is at present equipped with 10,560 ring spindles for the production of hosiery yarns.

New Unit for Piedmont Plush Mills.

Greenville, S. C.—Plans are being prepared by J. E. Sirrine & Co., local engineers, for a new unit for the Piedmont Plush Mills, Inc. The building will be of brick on concrete footings, with built-up roof, and will be equipped with a sprinkler system. It will cost about \$50,000. The company operates 24 looms in the production of plush and velour.

To Provide Waterworks at Textile Mill.

Rock Hill, S. C.—A bond issue of \$300,000 has been sold by the city council for enlarging the waterworks system to accommodate the new \$2,000,000 plant to be constructed here by the Rock Hill Printing & Finishing Co., recently an-

nounced. The bonds were purchased at par and accrued interest in equal amounts by the Peoples National Bank and the National Union Bank, both of Rock Hill. Contract for the waterworks extension will be awarded about April 10 and work begun by April 15.

NEW TIRE FACTORY ANNOUNCED FOR FLORIDA.

Company Capitalized at \$500,000 to Establish Plant at Tampashores—Initial Daily Capacity of 500 Tires and 500 Tubes.

St. Petersburg, Fla.—The Goulds Tire & Rubber Co., with executive offices in this city, has organized as a \$500,000 corporation to manufacture automobile tires and tubes at Tampashores, near St. Petersburg, on the Seaboard Air Line Railroad and Memorial highway at the head of Old Tampa Bay. Officers of the company include: Charles P. Bland, president, formerly of St. Louis and a large land holder of Florida; Thomas C. Goulds, vice-president and general manager and the builder a few years ago of a large rubber factory in Havana, and William F. Ridge, consulting engineer, president of Rid-Ged Grip Rubber Co., Akron, Ohio. In addition to the officers, directors of the company include Amos A. Mertz, capitalist of Williamsport, Pa.; C. C. Simmons, of Llewellyn-Simmons, industrial and consulting engineers, Miami, Fla.; J. S. Haselden, Daytona Beach, Fla., and Judge Arthur R. Thompson, St. Petersburg.

Buildings and grounds for the plant have been furnished by R. E. Olds, president of Olds Motor Works, Lansing, Mich. The buildings have a total of 48,000 square feet of floor space and are arranged for economical straight-line production. The plant is expected to be in production about June 1 with an initial capacity of 500 tires and 500 tubes daily. Machinery is arriving and with an increase in the number of moulds, will suffice for a production of 3000 tires and tubes daily.

With 400,000 motor vehicles registered, Florida offers a rapidly growing market for tires, and this fact coupled with manufacturing and transportation advantages, together with the practicability of making motor truck delivery to distributors and dealers in every section of the state over fine highways, should assure the success of the enterprise.

Contract Let for \$350,000 Addition to Mill.

Greensboro, N. C.—General contract was recently awarded by the Mock-Judson-Voehringer Hosiery Co. to Walter Kidde & Co., Greensboro, at approximately \$350,000, for constructing an addition to its hosiery mill, to be two stories and basement, of reinforced concrete and brick, with concrete and wood floors and tar and gravel roof. Other contracts have been awarded as follows, all firms of Greensboro:

Electrical work—Harold Ross.
Heating—Crutchfield-Sullivan Co.
Plumbing—Hunt Bros.
Sprinkler system—W. W. Dick.

25 Dwellings for Gadsden Tire Plant.

Gadsden, Ala.—General contract has been awarded to Parks & Co., Chattanooga, Tenn., by the Gadsden Land & Building Corp., Judge Louis L. Herzberg, president, for erecting 25 dwellings here for the operating heads of the \$7,500,000 unit of the big tire plant under construction for the Goodyear Tire & Rubber Co., of Akron, Ohio. The dwellings will cost about \$3500 each, exclusive of heating plants and garages. Robert & Co., Inc., Atlanta, are the architects-engineers and E. S. Draper, Charlotte, landscape architect.

NEW AND IMPROVED EQUIPMENT

Gasoline Hoist Presented.

The American Hoist & Derrick Co., St. Paul, has introduced a newly designed gasoline hoist, powered with a Waukesha gasoline motor, the same as previous "American" gasoline hoists. The power is transmitted to the hoist by means of a

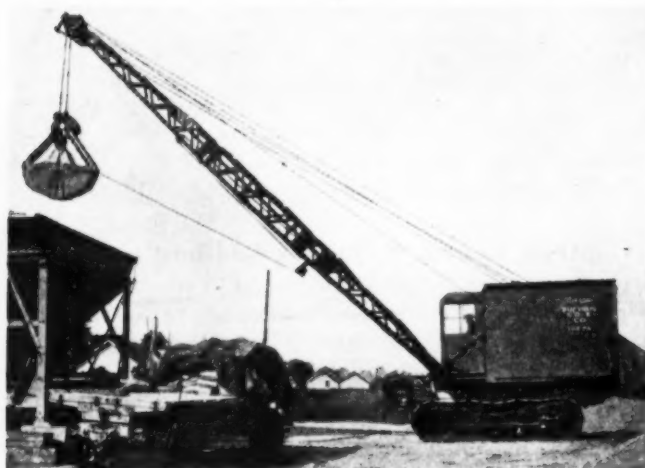


"AMERICAN" HOIST MOUNTED ON 5-TON TRUCK.

silent chain drive and is delivered to what would be the crank shaft on a steam hoist. The company's "American" two-speed drag scraper hoist is mounted on a five-ton motor truck, this hoist constituting the power plant of a productive and portable dragline installation.

Half Yard Gasoline Crane Device.

The new "1020" half-yard crane of the Bucyrus-Erie Company, South Milwaukee, Wis., is described as the smallest in the Bucyrus-Erie line, ranging from this half-yard machine to the 16-yard strippers. It is standard equipped with a 48 horsepower gasoline motor, designed to make it the most powerful crane and shovel of its size. Several features not usually found in a machine of this size and type have been



BUCYRUS-ERIE TYPE "1020."

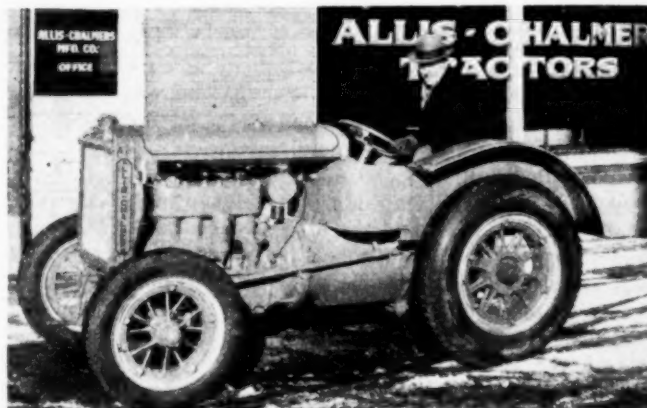
incorporated, such as a one-piece steel truck frame and turntable, enclosed gears running in oil, and anti-friction bearings on all high speed shafts.

Weight has been eliminated wherever possible without sacrificing strength, and in design the "1020" is practically a smaller duplicate of the Bucyrus-Erie "1030" the three-quarters cubic yard gasoline shovel, crane and dragline. The "1020" is offered as a crane, dragline, shovel, or dragshovel. Convertibility has been carefully planned for and it can be readily changed over from one type to another. It is also furnished as an electric machine where electric power is available.

Specifications of United Tractor.

Detailed specifications of the United Tractor and Equipment Corporation's tractor, "The United," indicate that it will pull three 14 inch plows under most conditions and a 28 inch separator, 12 to 14 foot combine with grain, a 10 foot one-way disc harrow and a four-row lister or small implements in tandem. In low gear, it is guaranteed to pull 3500 pounds and in high gear it will pull 2500 pounds. The dynamometer test shows 25 horse-power on the draw bar and 35 horse-power on the belt pulley, and speed is easily controlled and regulated. The net weight is 3950 pounds. The motor is specially designed Continental S 10 four-cylinder, water cooled by pump circulation; bore, 4 1/4; stroke, 5.

The crankshaft is of three-bearing type, made of high grade steel with front bearing 2 1/4 inches diameter by 2 1/4 inches, center 2 1/4 inches diameter by 3 inches; rear, 2 1/4 inches diam-



POWER UNIT FOR FARM AND INDUSTRIAL WORK.

eter by 3 inches. The camshaft is of drop forged steel, integral cams, case hardened and ground, and pistons are of light alloy iron, 4 3/4 inches long with three and one-quarter inch cast iron rings bottom seal rings and piston pin 1 1/2 inches diameter. The valves are of special silchrome metal for exhaust for special intake carbon, are accessible for grinding by removing head and of L-head valve system with ample size mushroom type tappets.

The tractor is built by the Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Varied Uses for Ventilator.

The Ventilouvre Company, Bridgeport, Conn., calls attention to a product which it describes as an attic ventilator, the Gabelouvre, that admits light and vision but will not admit

rain, snow, etc., to the interior. It is screened to keep out insects and is equipped with operating chains so that the unit can be operated from the attic or the room below. Also, it is used for ventilating garages, cellars, cold storage closets and similar places.



"GABELOUVRE," AT PEAK OF BUILDING.

In St. Petersburg, Fla., the company's representative installed two Gabelouvres in a small building, measuring only 6 feet by 13 feet.

CONSTRUCTION DEPARTMENT

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained.

The date at the end of an item indicates issue of the Manufacturers Record in which earlier facts about the same enterprise were published.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$40.00 a year.

Airports, Airplane Plants, Etc.

Ala., Montgomery—War Dept., Air Corps, Major Frank Kennedy, member Div. of Bldgs. and Grounds, Washington, D. C., probably begin work in 90 days on tactical school including hangars, landing field equipment; first unit to cost \$300,000.

Ala., Montgomery—City, W. A. Gunter, Jr., Mayor, let following sub-contracts for hangar at airport: struc. steel, Decatur Iron & Steel Co.; Decatur; steel sash, joists and hangar doors, Truscon Steel Co.; Youngstown, Ohio; roofing and metal work, Concrete Tile & Roofing Co.; plumbing, Perry & McDonald, 10 N. Lawrence St.; glazing, Binswanger & Co.; general contract to Hodgson-Jones Construction Co., Inc. 3-28

D. C., Washington—American Marine Airways, Inc., capital \$15,000,000, chartered; J. Edward Cassidy, Smith Bldg.

D. C., Washington—Atlantic Seaboard Airways, Inc., Washington, and New Standard Aircraft Co., Peterson, N. J., reported, will merge.

Fla., St. Petersburg—A. V. Trotter, San Diego, Calif., reported, may establish airplane manufacturing plant; Travel-Air Co., Wichita, Kan., also, reported, may establish plane manufacturing plant.

Ga., Atlanta—George H. Pruden, San Diego, Calif., and Edward Whitehead, Los Angeles, Calif., reported, negotiating for airplane manufacturing plant site; plant to have output of 1 plane per week; manufacture parts for tri-motor, all metal plane.

La., Lafayette—City votes May 7 on \$25,000 bonds for airports.

La., New Orleans—Menefee Airways, Inc., J. C. Menefee, Pres., 2111 Burgundy St., expending \$100,000 for improvements at Menefee Airport, St. Bernard Parish, near New Orleans; erect steel hangar, 100x100 ft., lighting improvements providing for night flying; erect administration building, tool house and restaurant.

La., Shreveport—City, L. E. Thomas, Mayor votes May 14 on \$300,000 bonds for establishing airport. See Financial News Columns.

Md., Baltimore—Senate passed measure authorizing \$2,500,000 loan for proposed airport; Empire Construction Co., 31 S. Calvert St., has contract for bulkhead; beginning construction; Chas. F. Goob, Engr. 3-7

Miss., Laurel—City plans establishing airport.

Mo., Marshall—Nicholas-Beazley Airplane Co., Inc., has plans for \$60,000 addition to aircraft plant; 50x150 ft. 3-7

N. C., Pinehurst—Knollwood Airport, Inc., capital \$100,000, chartered; Richard Tufts, Pinehurst; W. C. Mudgett, Southern Pines.

Tenn., Nashville—Interstate Airlines, Inc., subsidiary of United Aviation Corp., Chicago, immediately begin constructing hangars and other buildings at site on Dixie Highway acquired for \$125,000 airport; light field for night flying; ready for service July 1.

Tex., Brownsville—City negotiating for additional land for airport.

Tex., Dallas—Universal Air Lines, H. E. Barber, Pres., establish air passenger line from Columbus, Ohio, to Dallas, May 10, to pass through Little Rock, Memphis, Nashville, Louisville and Cincinnati.

Tex., Dallas—Dallas Aviation Industries, Bill Long, V. Pres., erect \$25,000 hangar at Love Field to accommodate Ford and Fokker planes on site of Hangar 11; 100x200 ft.

Tex., Georgetown—City plans establishing airport.

Tex., Kerrville—City, Chas. Mason, Chmn. Airport Committee, let contract to Roy Littleton for plowing, clearing and surfacing

Louis Scheriner Field; Beretta-Stiles Co., Inc., Consulting Engr., 1203 Natl. Bk. of Commerce Bldg., San Antonio. 2-28

Tex., Lubbock—City votes April 23 on \$75,000 bond issue for airport; acquire 640-acre tract on Plainview Highway, north of city; equip with adequate hangars and other facilities. 11-1-28

Tex., Vernon—Chamber of Commerce, Aviation Committee, plans establishing flying school and possibly short commercial air line.

Va., Charlottesville—City plans establishing airport on Terrell property, 4 mi. from city.

Va., Norfolk—Atlantic Seaboard Airways, Inc., Philadelphia, Pa., establish 1 of chain of flying fields here and offer passenger and mail airplane service between here, Washington, Richmond and possibly other points in East; plans acquiring 6 airports to form group with Hoover Field as parent; ordered 12 planes, to be delivered immediately.

Va., Roanoke—Roanoke Airways, Inc., capital \$50,000, chartered; J. Shirley.

Bridges, Culverts and Viaducts

Proposed Construction

Fla., Tallahassee—State Road Dept., Robert W. Bentley, Chmn., Tallahassee, received low bid from McLeod Construction Co., Tampa, \$7070, for approaches to Helena Run Bridge, Lake County.

Louisiana—Louisiana Highway Comm. receives bids for 3 bridges. See Roads, Streets, Paving.

Md., Baltimore—H. G. Perring, Conslt. Engr., Hearst Bldg., preparing plans for Forty-first St. Bridge over Northern Central Ry. tracks; Chas. F. Goob, Ch. Engr. 3-28

Md., Baltimore—City, Wm. F. Broening, Mayor, plans 644-ft. conc. bridge to carry Cold Spring Lane over Jones Falls Valley and Northern Central Ry. Co. tracks, near Melvale Station, eliminate Melvale grade crossing; 36-ft. driveway, two 6-ft. sidewalks; probably let contract in about 2 weeks; Nathan L. Smith, Highways Engr. 3-28

Md., Cumberland—City Council considering overhead bridge over B. & O. R. R. tracks at Baltimore St.; Ralph L. Rizer, City Engr.; submitted plans for conc. and steel type "U" shape overhead crossing.

Miss., Vicksburg—Warren County Bd. of Supvs. receives bids soon for 2 rein. conc. bridges in Vicksburg, on Polk and on Spring St.; John Hyland, Engr.

N. C., Charlotte—City Commrs. Marlon Redd, Mayor, received low bid from J. J. McDevitt Co., Builders Bldg., Charlotte, \$16,653, for underpass beneath tracks of Seaboard Airline Ry. tracks, on Seigle Ave. 3-21

N. C., Hobucken—U. S. Engineer Office, Norfolk, Va. receives bids Apr. 29 for highway bridge with steel swing draw span, across land cut of Pamlico River-Neuse River section of Inland Waterway, near Hobucken.

Okla., Oklahoma City—Oklahoma County Commrs. receive bids Apr. 8 for culverts in Mile 23, Sec. 4; R. S. James, Engr.

South Carolina—State Highway Dept., received low bids for 5 bridges. See Roads, Streets, Paving.

Tenn., Bristol—City considering bridge across Beaver Creek, near end of pavement on Holston Ave., connect with Bluff City Pike; Arthur Green, City Engr.

Texas—State Highway Comm. receives bids for 5 bridges and overpass. See Roads, Streets, Paving.

Tex., Eagle Pass—See Roads, Streets, Paving.

Tex., Crockett—V. R. Schmidt, State Highways Dept., Austin, will be Constr. Engr. to supervise work on $\frac{3}{4}$ mi. steel highway

bridge over Trinity River, between Crockett and Madisonville; 225 ft. main span; two 80-ft. spans; timber trestle; cost \$240,000.

Tex., Evadale—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids April or May for Evadale Bridge over Neches River, Jasper County, joining Highways 8 and 40. 3-28

Tex., Jacksonville—Cherokee County, J. J. Bolton, Judge, plans 113 ml. bridge across Mud Creek, Highway No. 43, estimated cost \$50,000; G. A. Bracher, Res. Engr.

Tex., Port Arthur—War Dept., Washington, D. C., approved revised plans, City of Port Arthur, to reconstruct bridge across Sabine-Neches Canal (Sabine-Neches Waterway). Port Arthur; 200-ft. horizontal clearance; bottom width of canal, 150 ft.; W. O. Bower, City Engr. 2-21

Tex., San Antonio—City plans building 4 bridges. See Roads, Streets, Paving.

Virginia—State Highway Dept., H. G. Shirley, Commr., Richmond, plans expending during 1929 about \$1,500,000 to build 10 large conc. and steel bridges and 40 to 50 conc. bridges, from 20 to 150-ft. in length: Larger bridges: Wythe County—over New River, at Jackson Ferry; Bedford County—over Big Otter River; Roanoke County—over Tinker Creek; Campbell County—over Staunton River, Brookneal; over Appomattox River, between Amelia and Chesterfield Counties; Brunswick County—bridges over Meherrin River and over Great Creek; Isle of Wight County—over Pagan River, Smithfield; Clarke County—over Shenandoah River, Berry Ferry.

Virginia—See Roads, Streets, Paving.
Va., Richmond—State Highway Dept., H. G. Shirley, Commr., Richmond, plans widening to 30-ft. and rebuilding Bottoms bridge over Chickahominy River, between Henrico and New Kent Counties.

Contracts Awarded

Ga., Calhoun—Austin Bros. Bridge Co., Atlanta, has contract for 140-ft. steel bridge over Coosawatee River, 250-ft. steel approach; construction recently approved by War Dept. 3-28

Ky., Covington—Chesapeake & Ohio Ry. Co., C. W. Johns, Ch. Engr., Richmond, let contract to Boxley Bros. Co., Orange, Va., for converting present railroad bridge over Ohio River between Covington and Cincinnati, Ohio, into highway bridge as part of Covington-Cincinnati Improvement project costing about \$12,000,000.

Ky., Greenup—See Roads, Streets, Paving.

Tex., Big Spring—Crocker & Fisher, Allen Bldg., Dallas, have contract for Gregg St. Viaduct across Texas & Pacific Ry. tracks; steel spans, rein. conc., conc. floor, paving, approaches, electric wiring, etc. 3-7

Tex., Wichita Falls—State Highway Comm., R. S. Sterling, Chmn., Austin, reported, let contract to C. Madison, Paducah, \$17,000, for bridge over Lake Wichita spillway.

Canning and Packing Plants

Ark., Omaha—Oxford & Crawford, Green Forest, constructing canning plant.

Fla., Lake Wales—C. W. Long, Bldg. Engr., Box 295, plans building No. 1 canning plant, using stainless steel sectionizing tables and other equipment. See Want Section—Machinery and Supplies.

Fla., Tarpon Springs—C. H. Tugwell and W. S. Wiseman, Wilson, N. Y., erect canning plant cor. Disston Ave. & Seaboard Airline Ry.

Ga., Toccoa—Company being organized with E. E. Mitchell, Jr., Sec.; erect cannery. Miss., Meridan—Exchange Club, J. G. Repsher, Henry Meyer, Committee, interested in establishment of canning plant.

Mo., Webb City—Chamber of Commerce interested in establishment of cannery.

Tex., Nacogdoches—Nacogdoches Canning Co., Roland Jones, Pres., has building, will install canning plant, daily output, 40,000 cans; A. S. Meador, Const. Engr., Box 347; install tomato and bean and beet canning machinery together with pulper and other equipment; contract for equipment closed with Sprague and Sells, Hoopeston, Ill. See Want Section—Miscellaneous. 3-21

Clayworking Plants

Miss., Vicksburg—W. C. Welch, 1428 Oakland St., erect brick and tile plant, daily capacity 75,000 bricks.

Coal Mines and Coke Ovens

Ky., Louisville—Byrne and Speed Coal Co., capital \$50,000, incorporated; W. S. Speed, Cherokee Drive.

Concrete and Cement Plants

Fla., Jacksonville—American Duntile-Duntex Co., St. James Bldg., establish South-eastern plant and executive headquarters here; manufacture building brick and tile roofing in 40 casks; erect \$50,000 plant on 2-acre site, Evergreen Ave. and 16th St.; construction to begin within 2 weeks; also acquired site in South Jacksonville, Myrtle Ave. and Louisa St.

Tenn., Cowan—M. C. Munday, Knoxville, and E. L. Hampton, Nichol Bldg., Nashville, reported, acquired controlling interest in \$4,000,000 plant of Cumberland Portland Cement Co.

Cotton Compresses and Gins

Okla., Grandfield—Red River Valley No. 11, incorporated; J. M. Hickerson, A. Landrum.

Okla., Komalty—Midway Gin Co., P. S. Watkins, Pres., Hobart, will erect cotton gin, daily output 50 bales; conc. floors, galv. iron roof. See Want Section—Building Material and Equipment; Machinery and Supplies.

Tex., Rogers—Rogers Gin Co., incorporated; W. B. Thomas, W. W. Adams.

Tex., Timpson—T. P. Todd erecting 12-stand cotton gin.

Tex., Timpson—L. D. McWilliams erecting cotton gin.

Cottonseed-Oil Mills

Tex., Georgetown—Georgetown Oil Mill construct conc. and brick mill.

Drainage, Dredging and Irrigation

La., Alexandria—Chamber of Commerce interested in improving drainage system.

Maryland—Senate adopted bill authorizing Claiborne-Annapolis Ferry Co., Emerson C. Harrington, Pres., Annapolis, to cut canal through Kent Island. 2-21

Miss., Greenwood—A. C. Bruce, Teoc Sub-Drainage Dist. of Big Sand Drainage Dist., receives bids until Apr. 6 for excavating approx. 23,000 cu. yd. ditch work.

Texas—Bd. of Water Engineers granted W. J. Neal, Waco, permit to irrigate 330 acres from Tehuana Creek, McLennan County.

Virginia—War Dept. approved recommendation of Ch. of Engineers Edgar Jadwin for purchase of Lake Drummond Canal, commonly known as Dismal Swamp Canal, together with all property rights and franchises as part of Inland Water Way, Norfolk, Va., to Beaufort, N. C.

Electric Light and Power

Ala., Birmingham—Stockholders of Alabama Power Co. vote April 15 on increase of capital stock by 1,000,000 shares of common stock without nominal or par value, so that authorized capital stock of company will be 4,606,753 shares, without nominal or par value, of which 3,356,753 shares shall be common stock and 1,250,000 shares preferred stock.

Ark., Berryville—Southwestern Gas and Electric Co., Shreveport, La., constructing electric line Harrison to Berryville; install transformer station; cost \$150,000.

Ga., Blue Ridge—Toccoa Electric Power Co., subsidiary of Tennessee Electric Power Co., Chattanooga, Tenn., reported, engaged Stevens & Wood, Inc., 20 Pine St., New York, to complete work on 30,000 h.p. hydro electric plant on Toccoa River, nr. here; dam 165 ft. high, lake 4400 acres; will require

2 yrs. to finish; total cost approximately \$4,500,000.

La., Arcadia—Lions Club interested in white way in business section.

La., Baton Rouge—Baton Rouge Electric Co. making extensions to 33,000 volt line; serve Wilson and Norwood.

La., Shreveport—Werner Co., Inc., Commercial Bank Bldg., Shreveport, has contract for 1-story transformer building for Southwestern Gas and Electric Co.

Mo., Tilghman—Tilghman Packing Co. erect power plant on Kent Island.

N. C., Creswell—Town desires to construct 9-mile power line from town to Columbia, N. C., also distributing system in Creswell; ready to issue from \$10,000 to \$15,000 6% bonds, interest payable semi-annually, principal payable \$500 per year; wants to exchange bonds with contractor who will do work, furnish material, etc., or with manufacturer who will furnish material only.

Tenn., Paris—City, reported, plans construction electric light plant.

Texas—West Texas Utilities Co., Abilene, has 5-year contracts for lighting and water pumping at Jayton, Aspermont, Hamlin and Rotan.

Tex., Austin—City, Adam R. Johnson, Mgr., and Walter E. Seabolt, Electric and Power Supt., plans street lighting system on streets to be paved under bond issue.

Tex., Petrolia—Texas-Louisiana Power Co., Fort Worth Club Bldg., Fort Worth, reported, acquired Petrolia Power and Light Co., including power lines to and in Byers.

Tex., Sanderson—Texas-Louisiana Power Co., Fort Worth Club Bldg., Fort Worth, reported, rebuild burned portion of plant.

Virginia—Virginia Electric and Power Co., Richmond, let contract to Westinghouse Electric and Mfg. Co., East Pittsburgh, Pa., for 4-type B-1 weather-proof outdoor switch houses, each for control of a 13,200 volt, 3-phase, grounded neutral, 60 cycle; each equipped with 1-type B-20 motor operated oil circuit breaker.

Va., Manassas—Bull Run Power Co. increased capital, \$25,000 to \$60,000.

Va., New Canton—Virginia Public Service Co., Charlottesville, advises that in anticipation of extending transmission system from Charlottesville to point near Crewe, from which territory in Buckingham and Fluvanna counties would be supplied with electric service, will move oil generating unit into this territory to operate for period of 24 months will not require bids from outside firms. 3-28

Va., Richmond—Stockholders of Virginia Electric and Power Co., vote April 17 on increase of authorized capital to 580,000 shares of no-par value from 480,000 shares.

Flour, Feed and Meal Mills

Miss., Tylertown—See Miscellaneous Enterprises.

W. Va., Ravenswood—St. Dennis Milling Co., capital \$50,000, incorporated; C. J. Knott, Odia Wolfe.

Foundry and Machine Plants

Ala., North Birmingham (Sta. Birmingham)—Lamson & Sessions Bolt Co., 1971 W. 58th St., Cleveland Ohio, announced plans drawn and work to be started immediately on \$500,000 bolt, nut and rivet plant; Geo. S. Rider, Engr., Century Bldg., Cleveland. 11-15

Tex., Houston—Neal Lucey Co., Neal Lucy, Pres., 60 N. Hamilton St., completing plans for machine shop and foundry, Greenwood St.

Tex., Houston—Reed Roller Bit Co., W. L. Childs, V.-Pres.-Gen. Mgr., let contract to Houston Construction Co., for \$19,000 addition to plant, Mack St. and Navigation Blvd., let contract to Henry H. Tates for 2-story office building, Ave. Q and Mack St., at approx. \$38,000; brick veneer, 40x110 ft. 2-7

Gas and Oil Enterprises

Alabama—Shell Petroleum Co., Shell Bldg., St. Louis, Mo., acquired holdings of Brown Oil Co., operating plants at Birmingham, Jasper, Gadsden, Montevallo, Clanton, Jacksonville and Columbiana; lately acquired Empire Oil Co.'s holdings at Sylacauga.

Fla., Fort Lauderdale—Shell Petroleum Co., Shell Bldg., St. Louis, Mo., reported, has tentative plans for refinery on South Side; expend \$30,000; have applied to city council for permission.

Georgia—Central Public Service Corp., 105 W. Adams St., Chicago, Ill., which acquired lately artificial gas properties in Florida, Georgia, South Carolina, Mississippi and Alabama; has applied for charter for operating company to be known as Georgia Public

Utilities Corp. with capital of 1000 shares non-par stock, with right to increase to 100,000 shares. 3-28

Ky., Central City—Caney Oil and Gas Co., Inc., C. W. Dodge, Pres., construct 4 miles of 3-in. oil pipe line. 3-28

Ky., Owensboro—Gill Oil Co. incorporated; Herman Gill, Lela Hinton.

La., Hammond—Fram Oil Co., Inc., capital \$100,000, incorporated; M. B. Wright, Hammond; John P. Fram, Kokomo, Miss.

La., Lake Charles—Sunshine Oil Corp., capital \$100,000, incorporated; Wm. R. Conklin, Jennings; Sidney W. Sweeney, Lake Arthur.

La., Lockport—A. P. Breaux & Sons Oil Co., Inc., capital \$40,000, chartered; A. P. Breaux, Sr.; Charles Folse.

La., Shreveport—Specialty Oil Co., Inc., capital \$15,000, chartered; E. D. Criddle, Jr., 1143½ Busby St.

La., Shreveport—Werner Co., Commercial Bk. Bldg., Shreveport, has contract for transformer station for Southwestern Gas & Electric Co.; brick; conc. floors; tile roof.

La., Sellers—Virginia Bridge & Iron Co., Roanoke, Va., furnishing approximately 130 tons struc. steel at Sellers, La., to E. B. Badger & Sons Co., for oil refinery buildings for New Orleans Refining Co.

Missouri—Empire Oil and Refining Co., Bartlesville, Okla., let contract to Kelly Dempsey & Co., Bliss Bldg., Tulsa, Okla., for 15 miles gas pipe line extending from company's main line at Saginaw to Neosho.

Mo., Kansas City—Bengal Oil Co., capital \$160,000, incorporated; E. E. Roper, 4318 Mercier St.

Mo., St. Louis—Missouri Oil & Developing Co., capital \$50,000, incorporated; Nat. Kenison, Wm. S. Cordy, Wainwright Bldg.

Okla., Boynton—Transcontinental Oil Co. will repair burned refinery.

S. C., Spartanburg—Spartan Petroleum Co., capital \$200,000, incorporated; R. L. Mitchell.

Tenn., Johnson City—Texas Oil Co., acquired 2 acre site at edge of city; construct \$50,000 storage plant, supplying Texaco distributors in this region; old plant to be used for reserve supply.

Texas—Gulf Pipe Line Co., Frick Bldg., Pittsburgh, Pa., reported, construct 136 mile 10-in. loop of trunk line from West Texas to connect with main lines and refinery and tidewater at Port Arthur; increase capacity 30,000 bbls. to 50,000 bbls. daily; new section of line will be coincident with installation of pump stations nr. Coahoma in Howard county, Clyde in Callahan county and Grandview in Johnson county.

Tex., Bastrop—Southwest Gas Co., Main-McKinney Bldg., Houston, reported, plans installing gas system.

Tex., Borger—Natural Gasoline Corp., incorporated; Lawrence Johnson, Walter J. Bradley.

Tex., Centerville—Ballard Oil Corp. increased capital to \$15,000.

Tex., Crystal City—Crystal Oil and Gas Co., incorporated; M. M. Davidson, L. C. Cribbs.

Tex., Dallas—Simms Oil Co., expend \$20,000 for improvements, including 2 additional bubble towers, heat exchangers; increase capacity to 4900 bbls. crude oil.

Tex., Eagle Pass—H. L. Hamilton, San Antonio, develop town site near oil field.

Tex., Fort Stockton—Dittman Drilling and Producing Co., capital \$80,000, incorporated; C. L. Dittman, Clyde Bradford.

Tex., Houston—Virginia Bridge & Iron Co., Roanoke, Va., furnishing 200 tons struc. steel for refinery buildings for Shell Petroleum Co.

Tex., Port Arthur—Texas Co., reported, rebuild loading docks at terminals; improve loading facilities at case and package plants.

Tex., West Columbia—Humble Pipe Line Co., Houston, enlarge pumping station, erect additional storage tanks.

Va., Charlottesville—Monticello Oil and Gas Co., capital \$50,000, incorporated; C. J. Stockdale.

Va., Franklin—Southampton Oil Corp., capital \$50,000, incorporated; S. W. Bawls, Pres.

Va., Norfolk—Colonial Oil Co., Seaboard Bank Bldg., erect 55,000 bbl. storage tank at terminals on Southern Branch of Elizabeth River, Money Point; double present capacity; dredge slip to depth of 25 ft.

W. Va., Huntington—Central Oil Co., incorporated; Roy Russell, Vinson-Walton Bldg.

Ice and Cold-Storage Plants

La., New Orleans—Superior Pure Ice Co., Inc., let following sub-contracts for ice plant: Glazing, Jos. B. Crasto, 7700 Spruce St.; cast stone, Edward D. Boyle & Co., 3301 Julia St.; millwork, American Mfg. Co., 2119 Louisiana Ave.; plumbing, A. G. Rose, 526 Loyola Ave.; sheet metal work, Groesbeck Co., 1513 Calliope St.; pile driving, J. Ed. Hemenway, 4130 Baudin St.; rein. steel, Truscon Steel Co., Canal Bank Bldg.; struct. steel, Virginia Bridge and Iron Co., Whitney Bank Bldg.; J. A. Petty & Sons, Inc., Godchaux Bldg., has general contract. 2-21

La., Port Allen—E. A. Bird and G. Romano formed ice company; erect \$65,000 plant, building to be under way in 30 days.

Tex., El Paso—Spears & Miller Ice Plant, Texas and Alameda St., owned by Texas-Louisiana Power Co., Fort Worth, O. T. Clark, Local Mgr., erecting 70-ton ice plant; 150x100 ft., brick, conc. floors, comp. roof; install two 180-h. p. oil engines and generators, 70-ton Arctic-P. ice tank, from Fairbanks, Morse & Co., 900 Wabash Ave., Chicago, Ill.; General Electric Co., Schenectady, N. Y.; York Ice Machinery Co., York, Pa.; foundations in; work by company's forces; private plans. 3-21

Va., Crozet—Crozet Cold Storage Corp., capital \$300,000, incorporated; John A. O'Neill; let contract to John P. Pettyjohn, 212 Eighth St., Lynchburg, for \$200,000 plant; let contract to Fox Bros., Greenville, for sinking well.

W. Va., Kenova—Kenova Ice Co. incorporated; T. S. Clark, Yvonne Riffe; establish ice plant.

Iron and Steel Plants

Tex., Beaumont—Petroleum Iron Works Co., capital \$2,000,000, incorporated; M. W. McMaster; 2467 Calder St.

Tenn., Elizabethton—Watauga Steel & Construction Co. establish steel plant on Thomas farm site.

Land Development

D. C., Washington—R. Marbury Stamp & Co., 816 Fifteenth St., N. W., incorporated; R. Marbury Stamp.

Fla., Avon Park—Twin Lakes Groves, Inc., capital \$50,000, incorporated; S. E. and E. M. Roberts.

Fla., Coral Gables, Miami—Coral Gables Properties, Inc., incorporated; R. P. Terry, Biscayne Bank Bldg.

Fla., DeFuniak Springs—Hicks-McCaskill Development Co., develop 5500 acres on Old Spanish Trail roads built, land partially cleared; expend \$150,000. 2-28

Fla., Dundee—John J. Olson, Inc., chartered; J. L. Olson, R. T. Dewell; develop citrus groves.

Fla., Fort Lauderdale—Flamingo Groves, C. C. Ausherman, Local Rep., develop 300 acres additional in oranges.

Fla., Fort Pierce—Thomas P. Goodbody, Toledo, O., acquired 865 acres; will develop.

Fla., Miami—Pepper and Potter, Inc., capital \$15,000, incorporated; B. S. Potter, Ingraham Bldg.

Fla., Miami—Venetian Islands, F. C. B. LeGro, 512 N. E. 15th St., making arrangements for completion of San Marino and San Marcos Islands and for work on DiLido Island.

Fla., Shiloh—Brevard County Citrus Groves Co., incorporated; A. M. Griffiths, G. H. Phelps.

Fla., St. Petersburg—Bd. of Governors, Chamber of Commerce recommended to city commission construction of municipal golf course.

Fla., Tampa—Sunset Park Co., J. M. Harvey, Pres., developing subdivision; install paving, sidewalks, electric lights and water; Tampa Builders, Inc., Contrs., both 212 E. Lafayette St.

Fla., West Palm Beach—McConn-Dobbins Corp., capital \$200,000, incorporated; R. C. Williams, Citizens Bk. Bldg.

La., New Orleans—Baronne Gravier Co., Inc., capital \$150,000, chartered; C. B. Fox, 1302 State St.

La., Shreveport—Hugh McClurg 1121 Slatery Bldg., incorporated; Hugh W. McClurg.

Mo., Poplar Bluff—Haag Land Co. incorporated; George M. Hearne, P. C. Haag.

Mo., St. Louis—Sulgrave Realty Co., incorporated; R. H. Switzer, Ridgewood Road.

Mo., St. Louis—Albert Wenzel Real Estate Co., 1010 Chestnut St., develop 42 acres for residence and commercial purposes; install grading, sewers, streets, sidewalks, water and gas; expend \$200,000; Joyce Surveying Co., Constr. Engrs., 620 Chestnut St. 3-28

Mo., St. Louis—Rau Realty Co., Inc., chartered; Philip Rau, Kirkwood; Joseph Rau, St. Louis.

N. C., Boardman—Boardman Development Co., A. S. Fields, Pres., Boardman; C. W. Fields, Mgr., P. O. Box 1491 Raleigh; develop 100 acres (formerly town) for industrial purposes; plan cotton gin; tile mfg. plant, etc.; repairing present buildings; grading streets. 3-28

N. C., Greensboro—Bain, Inc., capital \$150,000, chartered; E. E. Bain, 516 S. Asheville St.

N. C., Hamlet—Hamlet Golf Club, Inc., Hal B. Ingram, Pres., develop golf course; later erect clubhouse. See Want Section—Miscellaneous.

N. C., Manteo—Roanoke Island Fig Growers, Inc., capital \$125,000, incorporated; A. W. Drinkwater, Manteo; Frank Stock, Asbury, N. J.

N. C., New Bern—New Bern Holding Co., capital \$30,000, incorporated; W. W. Griffin, H. M. Jacobs.

Okla., Bartlesville—H. E. Wilkins develop 19 acre subdivision on south side.

S. C., Sumter—Boulevard Land Co., capital \$15,000, incorporated; D. D. Molise.

Tenn., Madisonville—Craighead Cave Corp., develop 136 acres for pleasure resort; building road, install lighting system; build shed over mouth of cave.

Tenn., Memphis—C. M. Jacobson Co., 413 First Natl. Bank Bldg., developing Magnolia Oaks subdivision, 8 acres; install curbs, gutters, sidewalks, ornamental street lights. 3-28

Tex., Fort Worth—Bd. of Park Commrs. let contract to Jack Neal for improving Rosemont Park, including walks and driveways; Cyclone Fence Co., Waukegan, Ill., has contract for steel work for 9 animal cages to be erected in Forest Park and W. O. Wear, Reynolds Bldg., for conc. work on cages.

Tex., San Angelo—E. M. McGrath develop 30 acre subdivision.

Va., Charlottesville—Waynesboro Development Co., capital \$50,000, incorporated; Albert S. Bolling.

Va., Norfolk—Homes Corp., capital \$25,000, incorporated; J. M. Reynolds, 42 Roanoke Ave.

Va., Richmond—Finance Committee of City Council adopted resolution providing an appropriation of \$61,000 for park and playground in section north of Bacon's Quarter Branch.

Lumber Enterprises

Ark., Collins—Crossett Lumber Co. acquired approx. 3000 acres timber land north and northeast of here.

Fla., Jacksonville—Bond-Howell Lumber Co., Thad Howell, Pres., New Smyrna, acquired Jones Lumber Co. plant, E. Eighth St. and Seaboard Air Line Ry.; expend approximately \$75,000 in improvements for establishing Florida wholesale distributing center of purchasing company.

Fla., Kelsey City—Kelsey City Lumber & Supply Co., capital \$15,000, incorporated; Joe Hatfield, M. E. Dolan.

Ky., Pikeville—A. J. Johnson, Vergie, Ky., acquired several hundred acres timber land at Long Fork headwaters; immediately develop.

Ky., Pikeville—Mullens & Profit, Lookout, Ky., acquired approx. 1,000 acres in Blacksburg Creek section of Pike County; installing 2 mills; start developing in spring.

Ky., Pikeville—R. C. Wesley and associates acquired 600 acres of timber land on Levisa Fork in Pike County; will develop.

S. C., Columbia—Ritch Lumber Co., P. L. Ritch, Pres., organized, and will acquire Triplett Lumber Co., operating mill turning out 20,000 ft. finished lumber per day; double capacity of plant; also acquire mill at Lexington.

Tex., Cleveland—R. H. Sumpter, Houston, acquired sawmill and properties of J. P. Rose Lumber Co.

Tex., El Dorado—McCarroll Lumber Co. establish \$40,000 lumber yard.

Tex., San Antonio—Alamo Lumber Co., Gibbs Bldg., increasing capital stock, \$300,000 to \$350,000.

Mining

Mo., Springfield—Ozark Copper Co., capital \$25,000, incorporated; Luther Bilderback, Commerce, Okla.; R. N. Danford, Springfield; own and operate copper, lead, zinc and other mineral mines, mill sites, etc.

North Carolina—See Miscellaneous Enterprises.

N. C., Asheville—Industrial Mineral Corp., capital \$100,000, incorporated; R. P. Booth, Flat Iron Bldg.

Okla., Ponca City—Chamber of Commerce investigating possibility of establishing plant to use 1,000,000 cu. yd. gypsum deposit on Gill farm, 3 mi. north of here.

Tenn., Calderwood—Allegheny State Roofing Co., F. H. Holt, Consulting Engr., Chicago, Ill., acquired control of over 1,700 acres on Abrams Creek near here; open several large quarries and establish slate mills; begin work in 90 days on 2½-mi. railroad from mouth of Abrams Creek to site of operations; initial investment probably exceed \$250,000.

Texas—See Railways.

W. Va., Mason—Ohio River Salt Corp., Norman O. Wein, Mgr., Hartford, develop 100 acres salt mines. 3-28

Miscellaneous Construction

Fla., Jacksonville—Alfred I. DuPont, Barnett Bldg., let contract S. S. Jacobs Co., Lutz Realty Bldg., for \$50,000 dock to connect sunken gardens of Epping Forest with present breakwater; 400-ft., rein. conc. illuminating facilities; Marsh & Saxelbye, Archt., Consolidated Bldg.

Fla., Miami—F. C. B. LeGro, 512 N. E. 15th St., Venetian Islands, let contract to J. K. Shinn & Co., 1379 N. Bayshore Drive, for conc. bulkhead on Di Lido Island; to be completed in 90 days.

La., New Orleans—Bd. of Commrs. of Port of New Orleans, New Courthouse Bldg., has low bid from J. V. & R. T. Burkes, New Orleans Bk. Bldg., for concrete slab, etc., on levee at St. Andrew St. wharf, at \$51,013.

La., Lafayette—Bd. of Trustees let contract to Thibodeaux & Harrison, Inc., 1420 Main St., Baton Rouge, for \$39,372 swimming pool and bath house; 14x23 ft. and 168x25 ft.; following have sub-contracts: Deep well and pump, Stamm-Schele Co., Rayne, La.; sump pump, A. M. Lockett & Co., Ltd., Q. & C. Bldg., New Orleans; L. J. Vorhies, Consulting Engr., Baton Rouge. 2-28

Missouri—U. S. Engr. Office, Postal Telegraph Bldg., let following contracts for revetment and pile clump dikes in Missouri River: Fishing River and Fire Creek Bends, Ross, Wogan & Co., 904 W. 25th St., Kansas City, 10,700 lin. ft. standard pile clump dikes; Rising Creek Bend, Bilhorn, Bower & Peters, Inc., 1811 Ry. Exchange Bldg., St. Louis, 3,700 lin. ft. standard pile clump dikes, also for 3,700 lin. ft. standard pile clump dikes at Sissons Bend; Brunswick Bend, Woods Bros. Construction Co., Lincoln, Neb., 4,600 lin. ft. standard pile clump dikes; Bernheimer Reach, List & Weatherly Construction Co., 416 Ry. Exchange Bldg., Kansas City, 6,400 lin. ft. standard pile clump dikes; St. Mary's Bend, A. W. Farney, 416 Ry. Exchange Bldg., 1,300 lin. ft. standard revetment and 1,450 lin. ft. repairs to revetment. 3-7

Mo., De Witt—U. S. Engr. Office, Postal Telegraph Bldg., Kansas City, let contract to Massman Construction Co., 519 American Bk. Bldg., Kansas City, for 12,400 lin. ft. standard pile clump dikes in Missouri River at Miami Bend. 1-24

Mo., Hermann—U. S. Engr. Office, Postal Telegraph Bldg., Kansas City, let contract to Woods Bros. Construction Co., Lincoln, Neb., for 8,600 lin. ft. standard pile clump dikes in Missouri River at Hermann Reach. 1-3

Mo., Springfield—Harry B. Diemer, Landers Bldg., let contract to Superior Mausoleum Co., 603 Orear-Leslie Bldg., Kansas City, for \$50,000 mausoleum, Memorial Park Cemetery; Carthage White stone and cement, steel sash, vault door, iron stairs, metal windows and ceilings; private plans.

Okla., Ardmore—Frank H. Reed, Neosho, Mo., advises constructing wading pool; construct similar pools in spring at Ada, Okmulgee, Miami and possibly Henryetta; established trust fund of \$50,000 to be used for pool at Shawnee; work under supervision of city engineer or park superintendent of city where pool is to be constructed. 3-21

Tex., Dallas—City and County of Dallas Levee Improvement Dist. issuing \$2,000,000 serial 5½% bonds through Taylor, Ewart & Co., Inc., Chicago, Ill., district organized for purpose of cooperating with city of Dallas and Dallas county in developing land lying in valley of Trinity River, comprising 9150 acres, of which 7217 will be made available for commercial, industrial and residential uses; project constitutes joint undertaking of City of Dallas, Dallas County, City and County of Wallas Levee Improvement Dist. and Dallas County Levee Improvement Dist. No. 5; will provide for work necessary to protect district from overflow, street openings and extensions, underpasses, roads, bridges and sewers essential for complete development of area.

Tex., Galveston—Galveston Wharf Co., F. W. Parker, Gen. Mgr., 2324 B St., plans con-

structing 2,000,000-bu. addition to elevator; to be completed before next wheat export movement begins; preparing plans.

Tex., Houston—Merchants & Manufacturers Building Insuring \$2,850,000 first mortgage 6½% sinking fund gold bonds, series "A," through Peabody, Houghteling & Co., 10 S. La Salle St., Chicago, Ill., and Paul & Co., 120 Broadway, New York City; company incorporated in Texas; acquired and will operate property in heart of Houston and in this connection will immediately erect fireproof, 10-story, rein. conc. and brick structure to provide under one roof, convenient store, office, light manufacturing, display and warehouse space; building located between tracks of Southern Pacific R. R. and Missouri-Kansas-Texas R. R., with switch for merchandise belonging to tenants. 2-7

Va., Norfolk—U. S. Engr. Office received bids Apr. 26 for placing approx. 8400 short tons riprap stone for repairing Craney Island bulkhead, Norfolk Harbor, Va. See Want Section—Bids Asked.

Miscellaneous Enterprises

Ala., Gadsden—Goodyear Tire and Rubber Co., Akron, Ohio, let contract to A. K. Adams & Co., 542 Plum St., N. W., Atlanta, Ga., for rubber reclaiming plant, total cost \$1,000,000; brick and steel, except 1-story sections to be sawtooth; to be in sections, 60x100 ft., 1-story; second, 3-story, 80x100; third, 2-story, 40x100; install 3500-lb. capacity elevator in 3-story section; let contract to McClintic-Marshall Co., Pittsburgh, Pa., for steel; erection to begin immediately. 2-28

Ala., Tarrant City—Southern Cereal Co., F. I. Tarrant, V. Pres., erect \$100,000 flake plant; 1 and 3-story, 147 x 200 ft., 22,000 sq. ft. floor space; install flaking mill.

Ark., Pine Bluff—O. K. Ice Cream & Candy Co., 519 Main St., let contract to E. C. Royce, Ark. Natl. Gas Bldg., for \$125,000 plant, 2-story, brick, rein. conc., 150 x 80 ft., plate glass front on freezing room. 1-3

Fla., Clewiston—Southern Sugar Co., B. G. Dahlberg, Pres., 645 N. Michigan Ave., Chicago, Ill., purchased equipment to increase capacity of sugar plant, 1,500 to 4,000 tons of cane daily, to be installed immediately; 9-roll mill, from Fulton Iron Works, St. Louis, Mo.; boiling apparatus, evaporators and pans, U. S. Cast Iron Pipe and Foundry, Burlington, N. J.; four 1,000 h. p. boilers, Edge Moor Iron Co., Edge Moor, Del.; cane knives for cane carrier, Farrell-Birmingham Co., Ansonia, Conn.; cane juice clarification system, Gilchrist & Co., Chicago, Ill.; 7 condensers, Schutte & Koerting Co.; 14 centrifugal machines, S. S. Hepworth Co., New York City; struc. steel McClintic-Marshall Co., Pittsburgh, Pa.; William G. Ames, Cons. Engr. 3-28

Fla., Crawfordville—Wakulla County News, Inc., capital \$10,000, chartered; Frank Webb, J. C. Pigott, Jr.

Fla., Fort Lauderdale—Robert N. Gore, Chicago, Ill., acquired Fort Lauderdale Daily News, afternoon publication, and Herald Publishing Co.; purchaser plans establishing chain of Florida newspapers and will edit agricultural and farming magazines from Daily News plant.

Fla., Miami—Pullman Co., 1028 N. W. Fifth Ave., erect laundry, N. W. Ninth St. and Sixth Ave.; conc. floor, gypsum roof; soon receive bids; following estimating: Harrison Construction Co., 500 N. E. 45th St.; O'Neill Orr Construction Co., 212 N. E. Fourth St.; and J. W. Hunt, 1130 S. W. 13th Ave., all Miami.

Fla., St. Petersburg—Schwartz & Langbein, 13 E. 22nd St., New York, plans establishing necktie manufacturing plant.

Fla., St. Petersburg—Purvis & Freese Dry Cleaning Co., 619 Ninth St., N., erect addition to cleaning plant, Ninth St., N.; 2-story; install machinery.

Fla., Tampashores—Goulds Tire and Rubber Co., St. Petersburg, capital \$500,000, organized to manufacture tire sand tubes; Charles P. Bland, Pres.; Thomas C. Goulds, V. Pres.; occupy plant on Seaboard Air Line and Memorial Highway, at head of Old Tampa Bay; 48,000 sq. ft. floor space; initial capacity, 500 tubes and 500 tires per day; installing machinery; begin production about June 1; William F. Ridge, Consulting Engr.

Ga., Calhoun—J. Roy McGinty acquired Calhoun Times.

Ga., Commerce—Globe-Superior Corp., L. L. Mosser, receives bids Apr. 10 for alterations and addition to garment manufacturing plant; 2-story and basement, rein. conc., brick, built-up roof; following estimating on general contract: Arthur R. Myers Co.; W. P. Francis, 201 Lackie St.; Sam N. Hedges Co., 579 Peachtree St., N. E.; Smith & Williams Co., Flagler Co., both Red Rock Bldg., Norwood Griffin Co., Bona Allen Bldg.; Palmer Co., Thrower Bldg., all At-

lanta; LaGrange Lumber and Supply Co., LaGrange; New Winder Lumber Co., Winder; Frank Wheatley Co., 510 Crawford Ave.; Claussen-Lawrence Construction Co., 1394 Gwinnett St.; H. B. Nelson Co., all Augusta; J. B. Mobley, Waynesboro; A. C. Samford, Shepherd Bldg., Montgomery.

Ky., Harrodsburg—Harrodsburg Ice and Produce Co., increase capital, \$36,000 to \$150,000.

Ky., Louisville—Louisville Plaster Products Co., capital \$31,100, incorporated; Ray I. Lynch, 1626 Jaeger St.

La., Alexandria—Red River Navigation Committee of Chamber of Commerce, J. L. Pitts, Chmn., agreed to proposal submitted by J. Clyde Dean and E. J. Lauve, Plaquemine, to place steamboat and barge line in Red River, City to supply necessary terminal facilities and shippers of city to subscribe \$5,000.

La., New Orleans—Independent Laundries, Inc., acquired Standard Laundry, S. Johnson St.

La., New Orleans—Levee Construction Co., Inc., chartered; Allan R. Wurtele, 1917 State St.

La., Port Allen—West Baton Rouge Publishing Co., Inc., chartered; J. H. Wade.

La., Shreveport—Hugh W. McClurg Co., Inc., capital \$10,000, chartered; Hugh W. McClurg, 1121 Slattery Bldg.; building and contracting.

Md., Baltimore—Procter & Gamble Co., Cincinnati, Ohio, let contract to Empire Construction Co., 31 S. Calvert St., for foundation for soap manufacturing plant, include driving piles and capping; F. W. Swinford, in charge; work just begun; bulkhead completed; company advises building bids will not be requested for several weeks. 2-7

Md., Baltimore—City, William F. Broening, Mayor, planning motorizing Bureau of Street Cleaning; use tractors with trucks and dispense with 150 horses.

Miss., Hattiesburg—Bd. of Directors of Co-operative Creamery at A. and M. College will withdraw from present quarters in dairy building and erect building on western edge of campus.

Miss., Tylertown—Kramer, McComb establish ice cream plant, creamery plant, grist mill and feed mill.

Mo., Cape Girardeau—Barnes Dairy Products Co. issuing \$30,000 8% preferred stock (to be sold in Cape Girardeau and trade territory); company incorporated in Arkansas, with plants at Thayer and Rogers, Ark.; erect plant at Cape Girardeau, to handle maximum of 150,000 lb. of whole milk daily; manufactures powdered milk, condensed milk, poultry feed, ice cream mix, powdered buttermilk, butter, cheese, etc.

Mo., Columbia—State Dairy Products Co., capital \$670,000, formed by merger of White Eagle Dairy, Columbia; Menzel Ice Cream Co., Hannibal; Moberly Ice Cream Co., Moberly; Weber's Creamery of Louisiana and Missouri Ice Cream Co., Marshall; C. J. Menzel, Pres., Hannibal; William Sparks, V. Pres., Marshall; headquarters, Columbia.

Mo., Independence—Independence Stove and Furnace Co., 700 S. Cottage St., let contract to L. W. Weeks, 633 S. Fuller St., for \$50,000 addition to enameling plant; 1-story, 65x120 ft.

Mo., Poplar Bluff—Midwest Dairy Products Co., Duquoin Dairy Products Co., Duquoin, Ill., acquired ice cream and soda manufacturing plants here and at Kennett formerly owned by Roy Woodburn Ice Cream Mfg. Co.

Mo., St. Louis—Anheuser-Busch, Inc., Ninth and Pestalozzi St., let contract to Robert Gaylard, Inc., 2817 S. 11th St., for \$10,000 plant.

Mo., St. Louis—Lincoln Pres., Inc., capital \$22,500, chartered; Arthur Sherwood, 5953 Cates St.

Mo., St. Louis—Licklider Realty & Construction Co., 8416 Natural Bridge Rd., incorporated; Arnold R. Licklider, 8416 Natural Bridge Rd.

Mo., St. Louis—Monie Contracting Co., capital \$12,500, incorporated; John M. Monie, Chemical Bldg.

Mo., St. Louis—News-Champion Printing Co., capital \$25,000, incorporated; Savoy W. Pereau, 7443 Elm St., Maplewood.

Mo., St. Louis—Broderick & Bascom Rope Co., 801 N. Main St., plans erecting \$150,000 addition to rope plant, N. Union Blvd. at Brown Ave.; Larkin Engineering Co., Archt., 406 Market St.

N. C., Charlotte—Charlotte Life Insurance Co., capital \$1,000,000, incorporated; H. B. Heath, 820 East Ave.

N. C., Greensboro—Belle's Cakes, Inc., capital \$25,000, chartered; Hazel Harris, Belle T. Abrams.

N. C., Lenoir—Avery Publishing Co., capital \$35,000, incorporated; Johnston Avery, Lenoir; Norman Hutton, Hickory.

N. C., Smithfield—Sun Publishing Co. incorporated; Luma McLamb, A. C. Gillett.

Okla., Henryetta—Pittsburgh Plate Glass Co., Frick Bldg., Pittsburgh, Pa., reported, erect \$2,000,000 plant; construction to begin immediately; employ 350; obtained options on 200 dwellings for employees.

Okla., Muskogee—Springfield Life Insurance Co., W. E. Keltner, Pres., Springfield, Mo., acquired Liberty Life Insurance Co.; W. E. Keltner, to be Chmn. of Bd., Treas. and finance officer; R. W. Catlett, to be president.

Okla., Tulsa—City Comm. authorized City Auditor to advertise for bids for equipment required for 3 new fire stations, to be purchased immediately; includes 5 combination pumper engines and hose trucks; pumps to have capacity of not less than 750 gal. per minute; aerial ladder truck; 4,000 ft. of 3-in., 2,000 ft. of 2½-in. and 2,400 ft. of 1½-in. fire hose.

Okla., Vinita—Co-operative Creamery, George Vincent, plans new building and equipment for creamery.

S. C., Columbia—Southern Building Block Corp., incorporated; M. D. Winchell, Jack Rephan.

S. C., Columbia—F. T. Parker Co., manufacturer of press cloth used in cottonseed, linseed and olive oil mills, increase size of plant and output, install modern machinery; recently incorrectly noted under N. C. 3-28

Tenn., Johnson City—Nehi Bottling Co., increasing capital, \$12,500 to \$30,000.

Tenn., Johnson City—Pet Milk Co., Arcade Bldg., St. Louis, Mo., acquired plant of Cox Dairy and Ice Cream Co. and its branch plant at Elizabethton; involves approx. \$100,000; business to be continued and expanded.

Tenn., Knoxville—Sterchi Bros. Stores, Inc., capital \$3,500,000, chartered; James G. Sterchi, Walter C. Lansford. (See Woodworking Plants. 3-21.)

Tex., Amarillo—Central Plains Publishing Co., capital \$24,000, incorporated; J. L. Nunn, Nunn Bldg.

Tex., Austin—Austin Laundry, A. D. Bolm, soon let contract for laundry addition, Lavaca St., between 15th and 16th St.; 1-story, 143x154 ft., brick, rein. conc., conc. floors, built-up roof.

Tex., El Paso—American Smelting & Refining Co., Gardfield, Utah, designing cottrell plant for treating 325,000 cu. ft. of gas per minute; ordered transformers from Westinghouse Electric & Mfg. Co., East Pittsburgh; rectifiers and other electrical equipment designed and built largely by company's forces; soon place orders for structural steel work. 2-14

Tex., Fort Worth—Puring Mills, R. E. Cowan, Mgr., erect \$165,000 mill and elevator adjoining present building, 1521 E. Fourth St.; rein. conc., 8-story, elevator 175 ft. high; install modern machinery, including 60-ft. drives, 120-ton track scales and additional unloading truck; work to begin as soon as permit is issued; to be ready for occupancy by Sept. 1.

Tex., Houston—Mayfair Publishing Co., 1333 W. Clay St., increasing capital stock, \$50,000 to \$100,000.

Tex., Houston—Southern Gravel Co. increasing capital stock, \$15,000 to \$90,000.

Tex., Quitman—Tyler Milk Products Co. erect \$10,000 milk station.

Tex., San Antonio—Seaford Laundry, Inc., chartered; Werner N. Beckmann, Gunter Bldg.

Tex., Schulenburg—Carnation Milk Products Co., E. A. Stuart, Pres., Oconomowoc, Wis., erecting \$300,000 condenser; 1 and 2-story, rein. conc., 100x300 ft.; all work by company's construction department; daily output 1500 cases of 24 cans each; acquired site at Sulphur Springs for second condenser; R. O. Heszey, Ch. Engr. 3-28

Tex., Slaton—Red River Creameries, Inc., G. S. Fraser, Pres., Frederick, Okla., installing creamery in Saage Bldg., establish approx. 50 cream buying stations over South Plains section and ship cream to Slaton.

Va., Norfolk—United States Dairy Products Corp., 1500 Walnut St., Philadelphia, Pa., reported, acquiring control of number of dairies in Norfolk and vicinity; also negotiating for dairy properties in Portsmouth, and surrounding territory.

Va., Winchester—Virginia Moe Patents, Inc., capital \$30,000, chartered; A. M. McIntyre; manufacture machinery known as Moe Fruit Cleaner.

W. Va., Charleston—Owens-Illinois Glass Co., Toledo, Ohio, formed by merger of Illinois Glass Co., Alton, Ill., with Owens Bottle Co., Toledo; subject to approval of

stockholders April 15; headquarters to be at Toledo.

W. Va., Hinton — International Safety-at Sea Suit Corp., capital \$300,000, incorporated; O. O. Cooper, L. W. Baylor; manufacture diving and safety suits.

W. Va., Paden City — American Glass Works, Inc., capital \$100,000, organized to take over and expand local company of same name, specializing in production of glass bottles, vials, etc.; Charles Ray, Paden City; David Fisher, New Martinsville.

Motor Bus Lines and Terminals

Mo., St. Louis—Missouri Pacific Transportation Co., subsidiary of Missouri Pacific R. R., L. W. Baldwin, Pres., ordered 21-passenger motor coach from Studebaker Corp. of America, South Bend, Ind.

Tex., San Antonio — Martin-Navarro Co. issuing \$190,000 first mortgage 6½% gold bonds, secured specifically by new San Antonio bus terminal, through B. F. Dittmar Co., W. K. Ewing Co., Inc., and Central Trust Co.; building covers entire property, 84x168.8 ft., stucco exterior and plastered interior walls, 1 and 2-story, Spanish architecture, cost more than \$100,000.

Va., Richmond—Union Terminal Corp. let contract to J. W. Atkinson, Lyric Bldg., for \$10,000 improvements on property, 412 E. Broad St., to be used for bus terminal; construct steel sheds and loading platforms; provide accommodations for 12 buses.

W. Va., Harrisville—Ralph T. Reynolds, Latstetter Bldg., Clarksburg, authorized by State Road Comm. to establish bus line connecting Harrisville, Grantsville, Ellenboro and St. Marys; to operate under name of Reynolds Taxi Co.

Motor Cars, Garages, Filling Stations

Ark., Little Rock—Hotel Marlon, H. Grady Manning, Mgr., let contract to McGregor & Pickett, A. O. U. W. Bldg., for garage, N. Louisiana St.; 1-story, brick, conc., 150x150 ft.; Thompson, Sanders & Ginochio, Archt., Hall Bldg. 1-17

D. C., Washington—North East Motor Co., 920 Bladensburg Rd., erect \$30,000 show and salesroom, 916 Bladensburg Rd., N. E.

Fla., Jacksonville — Jacksonville Electric Garage Co., A. B. Conley, 215 Julia St., erect garage, Beaver and Hogan St.; brick, 2-story, 25x105, 10,000 sq. ft. floor space; Marsh & Saxebye, Archt., Consolidated Bldg.

Fla., Miami Beach—Dixie Tire Co., M. W. Mosley, 5327 N. Miami Ave., acquired site, Fifth St., from Washington to Euclid Ave.; erect master service station; Spanish type, contain tire store, complete service department for automobiles, including gasoline and oil, garage and painting, batteries, accessories, and radio department; Walter C. DeGarmo, Archt., 39 S. E. Sixth St.

Fla., Orlando—Ernest Tiedtke let contract to A. E. Arthur for \$20,000 1-stop service station, Robinson and Orange Ave.; occupy entire block; brick; to be leased to Sanderson Digges Co. who will operate service station, equipped to dispense gasoline, oil, tires, give battery service, greasing, washing, polishing and vulcanizing; to be completed by May 15; David Hyer, Archt.

Fla., Palatka—Dyer Motor Co., Inc., capital \$10,000, chartered; H. R. Dyer, Rebecca Watson.

Fla., Pensacola—Owens Motor Co., Inc., capital \$10,000, chartered; W. H. Owens, 1811 E. Gonzalez St.

Ga., Atlanta—Hugh Richardson let contract to Graham Construction Co., Red Rock Bldg., for auto building, W. Peachtree and Fifth St., N. E., at \$61,416; to be leased to Grant-Harris-Rippe Motor Co.; Pringle & Smith, Archt., Norris Bldg. 3-21

Ga., Savannah—Studebaker Corp. of America, Paul G. Hoffman, V.-Pres., South Bend, Ind., reported, announced M. O. Dunning organized company with \$300,000 capital stock, to take over distribution of Studebaker and Erskine Passenger cars for South-eastern Georgia and Florida and distribution of Studebaker buses in Georgia, South Carolina and Florida; Robert G. Elbert, New York City to be associated with company; headquarters to be Savannah.

Ky., Louisville—Broadway and Fourth Ave. Realty Co. erect \$25,000 garage, 407-31 W. Broadway; brick, conc.

Ky., Mt. Washington—Mt. Washington Motor Co., capital \$10,000, incorporated; Wylder Harris, Dana Barnes.

Ky., Murray—Gulf Refining Co. acquired site, Sixth and Main St.; erect service station.

La., Arcadia—Melton Chevrolet Co., Inc., capital \$20,400, chartered; C. P. Melton, E. B. Melton.

La., Minden—Dixie Overland Filling Station, Inc., capital \$30,000, chartered; Robert Roberts.

La., New Orleans—Packard Motor Co. completing plans for automobile sales room and service department building, St. Charles Ave. and St. Mary St.; 2-story, rein. conc., brick and stone trim; 120x150 ft., sufficient strength for 4 stories; Albert Kahn, Inc., Archt., 1004 Marquette Bldg., Detroit, Mich.

La., Tallulah—Gilbert-Orpet Chevrolet Co., Inc., chartered; R. E. Gilbert, P. O. Orpet.

Md., Catonsville—Simons Chevrolet Sales, Inc., 628 Frederick Rd. chartered; W. Edward Simons, Harry P. Cockrell.

Miss., Como—L. J. Gammon let contract to J. M. Callahan, Memphis, Tenn., for Ford agency building.

Miss., Greenwood—Moore & McDavid Auto Co. let contract to S. G. Beaman for automobile building, Church and Lamar St.; 100x156½ ft., 1-story, brick, conc. floors; R. J. Moor, Archt.

Miss., Vicksburg—Chevrolet Motor Co., Detroit, Mich., preparing preliminary plans for \$50,000 garage, Cherry St.; 1-story, 100x210 ft., brick, fireproof; to be occupied by Hand-worker Chevrolet Co.

Miss., Yazoo City—Woodvine Motor Co. receives bids in about 60 days for \$50,000 automobile show room and service building, Washington and Commercial St.; N. W. Overstreet, Archt., Mississippi Fire Insurance Co. Bldg., Jackson. 2-7

Mo., Kansas City—Norris Motor Co., 1701 McGee Bldg., increasing capital, \$25,000 to \$50,000.

Mo., Louisiana — Schraer Chevrolet Co., capital \$20,000, incorporated; Hilda Schraer.

Mo., New Madrid—Jones Tube Valve Co., capital \$35,000, incorporated; Henry A. Jones, Steele; C. W. Stevenson, Lilbourne; automobile accessories.

N. C., Biscoe—Lewis Motor Sales, Inc., capital \$25,000, chartered; W. A. Lewis, Jonah McAulay.

N. C., Charlotte—Reo Charlotte Parts Depot, Inc., capital \$30,000, chartered; E. G. Paxson, Lansing, Mich.; J. G. Gaughan, Charlotte.

Okla., Oklahoma City—Reinauer Bros. Motor Co., 25 W. Ninth St., receiving bids on garage addition; 2-story, brick, steel, rein. conc., 50x140 ft.; Voelcker & Dixon, Archts., Perkins-Snyder Bldg., Wichita Falls, Tex.

Okla., Shawnee—Robinson-Johnston Motor Co. let contract to G. P. Carr Construction Co., for automobile building, Ninth and Louisa St.; 190x140 ft.; work to begin immediately.

Tenn., Chattanooga—Mark K. Wilson Co., Power Bldg., erect \$10,000 garage, Eighth St., for Medical Arts Corporation.

Tenn., Covington—Dennis Motor Co., Inc., capital \$12,000, chartered; L. L. Dennis, H. E. Walker.

Tenn., Memphis—Wm. A. Webster, East St., has low bid from F. J. Ozanne & Co., Empire Bldg., for tire and filling station, Linden Circle, at \$12,386; to be occupied by Linden Circle Tire Co.; E. L. Harrison, Archt., Fidelity Bank Bldg. 3-7

Tex., Dallas—Davis & Inge, 3501-07 Oak Lawn, erect \$15,000 oil station and building; brick.

Tex., El Paso—Select Tire Service, Inc., erect \$28,500 building, 501 Texas St.

Tex., Fort Worth—Mrs. J. E. McCarthy, 1414 Pruitt St., let contract to Echols Bros., 1010½ Main St., for \$22,000 filling station and store building, 2408 N. Main St.

Tex., Fort Worth—Walter B. Scott Ellison Bldg., completed plans for \$150,000 tire and filling station, Second and Taylor St.; 2-story, brick, steel, conc., 110 x 118 ft., conc. and terrazzo floors; Elmer G. Withers, Archt., 201 Holmes Bldg.

Tex., Galveston—Charles Newding, 2308 E. St., erect Hudson-Essex display room and service station, 31st St. and Broadway.

Tex., Houston—Firestone Tire and Rubber Co., Harvey S. Firestone, Pres., Akron, Ohio, erect \$175,000 super-service station; oil, wash, grease cars, re-line brakes, test lights, examine batteries, dispense gasoline and oils; work to begin in few months; may erect stations at Dallas, Fort Worth and San Antonio; W. A. Baird, Local Mgr.

Tex., Houston—Alford Motor Co., Henderson, receiving bids for \$20,000 automobile building; 2-story.

Tex., Houston—Ray's Super Auto Service, incorporated; Ray D. Boggess, F. J. McNellie, 1228 W. Drew St.

Tex., Houston—R. L. Autry, 3515 Chenevert St., let contract to T. B. Hubbard Construction Co., 1507 Shepherd St., for \$50,000 automobile showroom, La Branch St. 3-28

Tex., Humble—Michael Chevrolet Co., incorporated; D. A. Michael, J. R. Cravens.

Tex., Lockhart—Glosserman Chevrolet Co., capital \$15,000, incorporated; M. W. Glosserman, B. C. Lipscomb.

Tex., Ozona—McLeod Motor Co., capital \$15,000, incorporated; Jax Cowden, A. H. McLeod.

Tex., Silsbee—Caschol McDonald Motor Co. incorporated; O. T. Pennell, J. A. Cashion.

Tex., Temple—Humble Oil and Refining Co., Houston, let contract to B. F. Beasley for \$14,000 filling station, Fourth and Adams St.

Tex., Wichita Falls — Cornelson Motors, Inc., capital \$30,000, chartered; S. P. Chambers, 702 Wofford St.

Tex., Yorktown—Dewitt Motor Co., capital \$30,000, incorporated; Chas. Cook, Berthold Thum.

Va., Danville—Texas Oil Co. let contract to Cabaniss & Wagner for filling station, Baugh and N. Main St.; tapestry brick, stucco, Spanish tile roof.

Va., Richmond—Seven Pines and Sandstorm Motor Co. incorporated; Oliver J. Sands, Westmoreland Pl.

Va., Richmond—Shafer Motor Co., Inc., capital \$25,000, chartered; A. H. Shafer, 3201 Dill Ave.

W. Va., Clarksburg—Wade Auto Co., Inc., 149 W. Main St., let contract to Claude S. Tetrick, 201 Ryder Ave., to design and construct Ford sales and service building; 107x64 ft., rein. conc., steel, tile, 1-story; install wash rack and equipment and Alemite rack and equipment. 3-28

W. Va., Huntington—Parker Motor Co., Inc., capital \$25,000, incorporated; R. B. Parker, I. B. Studer.

W. Va., Huntington—Firestone Tire Stores, Inc., 650 Fourth Ave., capital \$50,000 incorporated; H. S. Klein; plans expansion.

Railways

Ark., Clarksdale—St. Louis-San Francisco Ry., F. G. Jonah, Ch. Engr., St. Louis, Mo., let contract to Reid & Lowe, 2109 N. 14th St., Birmingham, Ala., for second main track between here and Harvard, 3 mi., including grading, bridging, track laying and ballasting.

Missouri—Western Pacific R. R. Co., E. W. Mason, Vice-Pres. and Gen. Mgr., San Francisco, Calif., ordered 5 Mikado type locomotives from American Locomotive Co., 30 Church St., New York, for delivery in June; involves approx. \$400,000.

Tenn., Memphis—St. Louis-San Francisco Ry. Co., H. L. Worman, Supt. of Motive Power, immediately begin constructing 365 flat bottom coal cars at car-building yards of company at Yale, to cost \$912,000; 55-ton capacity, 42 ft. long, steel superstructure; to be used for transporting coal.

Texas — Southern Pacific Co., P. Shoup, Pres., San Francisco, Calif., reported, applied to Interstate Commerce Comm. for permission to issue \$65,160,000 bond, proceeds to pay off maturing indebtedness and for improvements to system.

Texas—Gulf, Colorado and Santa Fe Ry. Co., F. Merritt, Ch. Engr., Galveston, let contract to Lone Star Construction Co., W. T. Montgomery, Pres., Milam Bldg., San Antonio, for Cane Belt extension, 40 mi., connecting Lane City with Thompson's Ferry. 3-21

Tex., Edcouch—St. Louis, Brownville and Mexico Ry., C. S. Kirkpatrick, Ch. Engr., Houston, begin work Apr. 15 constructing branch line from here to Weslaco in lower Rio Grande valley, 10 mi.; cost \$300,000.

Tex., Houston—San Diego and Gulf Ry. Co., Niels Esperson Bldg., incorporated; J. W. Cain, Pres.; A. H. Smith, V.-Pres.; operate from mines of Duval Texas Sulphur Co. to connection with Texas Mexican Ry. Co. at Palgana Junction; let contract to Smith & Bishop, Skidmore, for grading; to W. A. Smith Co., Houston, for laying rails; operations expected to begin about May 15.

Tex., Presidio—Kansas City, Mexico and Orient Ry. Co. of Texas, H. E. Beard, Ch. Engr., Wichita, Kan., applied to Interstate Commerce Comm. for permission to construct 86 mi. of new line, from Alpine to Presidio; to be financed by Atchison, Toneya and Santa Fe Ry., G. W. Harris, Ch. Engr., Chicago, of which company is subsidiary.

Va., Roanoke—Norfolk and Western Ry. Co., A. C. Needles, Pres., build thirty 18,000-gal. locomotive tenders in Roanoke shops; to be completed about July.

W. Va., Beech Glen—Chesapeake & Ohio Ry. Co., C. W. Johns, Ch. Engr., Richmond,

Va., let contract to Reed and Laysley Co., Inc., South Charleston, W. Va., for grading and masonry work for connecting track between Kanawha & West Virginia R. R. (New York Central) and Beech Glen and Chesapeake and Ohio at Bryce, including bridge over Gauley River, total cost of entire project estimated to be \$221,348.

W. Va., Duo—Chesapeake & Ohio Ry., C. W. Johns, Ch. Engr., Richmond, applied to Interstate Comm. for authority to construct 1½-mi. extension from Duo up Big Clear Creek in Greenbrier County, to serve additional coal and timber lands in area of Glencoe and Duo branch lines.

W. Va., Hinton—Chesapeake and Ohio Ry. Co., C. W. Johns, Ch. Engr., let contract to F. H. Clement & Co., Bethlehem, Pa., for grading and masonry work in general project of extending 4 tracks in westbound yard, relocating main lines, extending switching lead and light repair yards, cost about \$547,200. (See Railways, Va., Richmond.) 2-7

W. Va., Terra Alta—Baltimore and Ohio R. R. System, H. A. Lane, Ch. Engr., Baltimore, Md., make improvements on West end of Cumberland Division; includes additional track from Main St. crossing to Rindard, interlocking switching system, new tower at Terra Alta; portion of material on ground and work to begin in short time.

Railway Shops and Terminals

Ky., Russell—Chesapeake & Ohio Ry. Co., C. W. Johns, Ch. Engr., Richmond, Va., let contract to Haley, Chisholm & Morris, Charlottesville, Va., for grading and masonry work, in general project of eastbound yard, engine underpass and run-around tracks, including changing county road, total cost estimated to be \$1,433,000. 2-23

Mo., Lindenwood (St. Louis)—St. Louis-San Francisco Ry., F. G. Jonah, Ch. Engr., let contract to J. W. McMurray Contracting Co., Ry. Exch. Bldg., Kansas City, for conc. engine pits and foundations for 12-stall extension to roundhouse; cost approx. \$260,000.

Mo., St. Louis—St. Louis-San Francisco Ry., Frisco Bldg., erect \$18,000 engine house; 1-story; work by company's forces.

Va., Clifton Forge—Chesapeake and Ohio Ry. Co., C. W. Johns, Ch. Engr., let contract to John W. Cowper Co., Inc., State-Planters Bk. Bldg., Richmond, for engine house and shop facilities, part of engine terminal improvements, and 21-stall roundhouse. 3-23

Roads, Streets and Paving

In connection with LAND DEVELOPMENT large sums are expended for roads, streets, paving and sidewalks. Details will be found under that classification.

Proposed Construction

Ala., Birmingham—City Comm. plans expending \$33,225 to pave Vanderbilt road, Thirty-fifth to Forty-third Ave., North; Steiner Ave., Thirteenth to Fourteenth St.; A. J. Hawkins, City Engr.

Ala., Mobile—City, S. H. Hendrick, City Clk., considering paving Fairview Ave. and Woodley Terrace to Montgomery County Club.

Ala., Selma—T. J. Rowell, Mayor, considering resurfacing Broad St., Walter Ave. to Dallas, with Kyrock or sheet asphalt.

Ark., Fayetteville—Bd. of Comms., Districts No. 38 and 39, Bert Watson, Sec., plans starting paving, curbing and guttering 9 blocks in Dist. about April 15; cost about \$25,000.

Ark., Marion—State Highway Dept., Dwight H. Blackwood, Chmn., Little Rock, plans receiving bids soon for 12 mi. Highway No. 70, from West Memphis, Crittenden County to Forrest City, St. Francis County.

Ark., Mena—State Highway Dept., Dwight H. Blackwood, Chmn., Little Rock, plans completing Highway No. 71 north of Mena, Polk County.

Fla., Miami—City Comms., H. E. Ross, Clk., receive bids Apr. 8 for 44,000 sq. yd. oil and sand for South Dixie St. from Seventeenth Ave. to Brooker St., Highway Improvement Dist. No. 395; sidewalks, curbs, etc., on west approach on S. W. First St. Bridge; C. S. Nichols, City Engr.

Ky., Franklin—Bd. of Council, P. H. Lewis, Mayor, receives bids Apr. 16 for grading, 5,191 lin. ft. conc. curb and gutter, 9,567 sq. yd. resurfacing present macad. pavement for foundation, lay new macad. foundation, surface foundation with 4,700 tons rock asphalt, 2,000 cu. yd. roadway excavation; H. S. Jackson, City Engr.

Ky., Glasgow—City, J. E. Clayton, Mayor, receives bids Apr. 16 for draining, conc.

curbs and gutters and paving with rock asphalt on reconstructed macad. foundation or 8-in. new macad. foundation; 10,100 sq. yd. surface, 5,000 lin. ft. conc. curbs and gutters; Klyce & Harub, Engrs., 705 Fourth & First National Bank Bldg., Nashville, Tenn.

Ky., Paducah—City Comms., E. R. Bradshaw, Commr. of Public Works, receives bids Apr. 9 to improve various streets: 13,63 cu. yd. excavation; 24,375 sq. yd. rein. cement conc., Warrenite bitulithic, sheet asphalt or brick paving on cement or asphaltic conc. base; 8,200 lin. ft. gutter; 8,175 lin. ft. conc. or granite curb.

Louisiana—Louisiana Highway Comm., O. K. Allen, Chmn., Baton Rouge, received low bids for 3 roads: Bossier-Webster Parishes—26,755 mi. conc., Bossier City-Minden, J. B. McClary Co., Atlanta, Ga., \$706,823; Avayelles St. Landry Parishes—10.51 mi. 16-ft. conc., Bunkie to Morrow, J. M. McCrary Co., \$230,376; Ouachita Parish—13.2 mi. 8-ft. conc., Monroe-Calhoun, Nelson Bros., \$274,153. 3-7

Louisiana—Louisiana Highway Comm., O. K. Allen, Chmn., Baton Rouge, received low bids for 2 roads: Tangipahoa Parish—15.650 mi. 18-ft. conc., Hammond-Amite Highway, Nelson Brothers, Memphis, Tenn., \$326,146; Calcasieu Parish—8.972 mi. conc., W. L. Pearson & Co., \$198,222; L. R. Ames, State Highway Engr.

Louisiana—Louisiana Highway Comm., O. K. Allen, Chmn., Baton Rouge, receives bids Apr. 16 for 3 roads and 3 bridges: East Baton Rouge and Ascension Parishes—3.240 mi. 20-ft. Portland cement conc., Hope Villa-Prairie Highway (Air Line), excluding bridge section over Bayou Manchac; Plaquemines Parish—to furnish gravel or shell and to build 8 mi. gravel or shell New Orleans-Fort Jackson Highway; Iberville Parish—furnish shell and to build 5.057 mi. Carville-New Levee Highway from point south of Carville through Carville to point north of U. S. Marine reservation; Union Parish—bridge over Corne Creek, Farmerville-Bernice Highway, 362-ft. creosoted pile trestle, 120-ft. steel truss span, on timber pile piers; 78,000 ft. B.M. creosoted lumber; 105,300 lb. fabricated struct. steel; Catahoula Parish—2 bridges on Harrisonburg-Enterprise Highway; 248-ft. creosoted timber trestle over Callahan's Branch; 447-ft. creosoted timber trestle and 100-ft. steel truss span on timber pile piers over Rawson's Creek, 78,100 lb. fabricated struct. steel; L. R. Ames, State Highway Engr.

La., Benton—City, L. E. Thomas, Mayor, votes, probably May 15, on \$1,800,000 bonds: \$1,500,000, to purchase site for United States army attack wing; \$300,000, municipal airport.

La., Bogalusa—City, Comm. Council, plans expending \$250,000 for street paving; B. D. Talley, City Atty. See Financial News Columns.

La., Crowley—Louisiana Highway Comm., O. K. Allen, Chmn., Baton Rouge, may let contract in May for 7 mi. 18-ft. conc. Old Spanish Trail, between Crowley and Estherwood, Acadia Parish; L. R. Ames, State Highway Engr.

La., Gretna—Louisiana Highway Comm., O. K. Allen, Chmn., Baton Rouge, plans hard surfacing road from Gretna, Jefferson Parish, to Alvin Callender aviation field at Belle Chasse; L. R. Ames, State Highway Engr.

La., New Orleans—City plans 41.27 mi. hard-surfacing, and 14.81 mi. temporary surfacing, during 1929; T. S. Walmsley, Commr. of Public Finances.

Maryland—State, Albert C. Ritchie, Governor, plans expending \$4,000,000 to improve 5 roads and approaches: Widen Washington Blvd. 20 to 40 ft. from Baltimore to Savage, Md.; build spur roads from boulevard leading into Rhode Island Ave. and into Sixteenth St., Washington! build road connecting Calvert County with Crain Highway; widen 25 mi. National Highway through Western Maryland; build approaches and roads leading to proposed Chesapeake Bay Bridge. See Financial News columns. 3-14

Md., Baltimore—State Roads Comm., G. Clinton Uhl, Chmn., receives bids Apr. 9 for 8 mi. 30 ft. conc. shoulders on Philadelphia road, from Cowenton, through Van Bibber; Harry D. Willard, Ch. Engr.

Md., Baltimore—Bd. of Estimates authorized paving sections of 11 streets and alleys, including Bradford, Chapel, Dean St.; Welcome, Hyacinth Alleys; estimated cost \$34,900; considering \$23,000 for conc. curbing in various sections; Nathan L. Smith, Highways Engr.

Md., Baltimore—City, Wm. F. Broening, Mayor, plans widening Cold Spring Lane from Harford road to Reisterstown Road; Nathan L. Smith, Highways Engr.

Md., Chestertown—Town plans expending \$85,000 for street improvement. See Financial News.

Md., Towson—Baltimore County Comms., John R. Haut, Ch. Clk., receive bids Apr. 9 for 2 roads: Group 2—2 mi. Dogwood road, from end of macadam to Old Court road, Second Dist.; Group 3—14 mi. macad. Marwood road from Woodbine Ave. to Charles St. Ave., Ninth Dist.; Samuel A. Green, Roads Engr.

Md., Cumberland—City, Thomas W. Koon, Mayor, considering opening and extending Front St., Frederick to Knox; Thomas St., West Third to Springdale.

Md., Frederick—City, Bd. of Aldermen, considering conc. curb and gutter in various sections; Elmer S. Maxwell, City Engr.

Miss., Clinton—Town, Dr. W. H. Weathersby, Clk., receives bids Apr. 23 for 3,000 cu. yd. earth work, 15,046 cu. yd. gravel base, 7,300 lin. ft. curb and gutter, 20,000 sq. yd. asphalt block or one course conc. paving, 7,000 ft. 10 to 24-in. storm sewers; Morgan & Co., Inc., Engrs., Jackson.

Miss., Columbia—City, Mayor and Bd. of Aldermen, receive bids April 9 for 4,100 sq. yd. brick, conc. or asphaltic paving, 2,750 cu. yd. excavation, 3,200 lin. ft. curbs; Henry A. Mentz & Co., Inc., Const. Engrs., Hammond, La.; J. W. Watts, City Clk.

Miss., Holly Springs—City, Mayor and Bd. of Aldermen, plan paving Salem St., from Walthall to Salem Bridge.

Miss., Natchez—City, Lemuel P. Connor, Clk., receives bids Apr. 23 for sidewalks on Homochitto St., Pine to Gastrell Alley, and Pine to Dunleith property.

Miss., Ripley—Tippah County Bd. of Suprs., plan expending \$200,000 for roads in Districts No. 1, 2 and 4. See Financial News.

Mo., Clayton, St. Louis—St. Louis County, Roy Jablonsky, Highway Engr., receives bids April 10 to improve North and South road, from Clayton road to Eager road.

Mo., Columbia—State Highway Dept., Jefferson City, plans receiving bids during Apr. to widen to 19 ft. Highway No. 63 north of Columbia, Boone County, from Hinton to Boone-Randolph County line.

Mo., Fredericktown—State Highway Dept., Jefferson City, may receive bids April 15 to pave Highway No. 61 from Fredericktown to Farmington.

Mo., Independence—Jackson County, Leo E. Koehler, County Highway Engr., received low bids from McTernan & Halpin, Kansas City, for 4 sections of road near Swope Park; 2,045 mi. Seventy-first St., Swope Park to U. S. Highway No. 50, \$51,760; 1,643 mi. Oldham road, Swope Park to Eighty-seventh St., \$38,622; 2,475 mi. Eighty-seventh St., U. S. Highway No. 71 to Blue Ridge extension, \$87,730; 709 mi. Troost Ave., city limits to Eighty-fifth St., \$20,797; Col. E. M. Slayton and N. T. Veatch, Jr., Const. Engrs.

Mo., Madison—City plans expending \$10,000 to gravel various streets. See Financial News Column.

Mo., St. Joseph—State Highway Dept., Jefferson City, plans expending \$500,000 to pave 16 mi. road from Faucett, Buchanan County, to Platte City, Platte County; T. H. Cutler, State Highway Engr.

N. C., Asheville—Buncombe County Comms., receives bids soon to grade 30-ft. wide Reems Creek road, from old Weaverville road, almost to Beech. 1-31

N. C., Charlotte—State Highway Comm., Raleigh, receives bids April 9 to pave 3 roads in Charlotte: Leading out to Route 26, toward Pineville, Route 15, toward Concord, and Route 27 toward Mt. Holly; all 36-ft. wide; John W. Waldrop, Acting State Highway Engr.

N. C., Greensboro—City, P. C. Painter, Mgr., considering widening Gaston St., Green to Davie; cost about \$100,000.

N. C., Greensboro—Guilford County Comms., D. L. Donnell, County Mgr., plan grading, top-solling and improving horse-shoe road leading out north of Greensboro, via Tom McKnight Place, crossing Reedy Fork and intersecting with Brown Summit and Summerfield Highways; bridge across Reedy Fork Creek; probably concrete.

N. C., Lexington—State Highway Comm., Raleigh, J. Elwood, Cox, Commr., will acquire and improve roads in Davidson County: 8 mi. Highway No. 90, Lexington to Hepler's Store; 3 mi. road from Highway No. 10, Lexington, to Junior Order Orphans Home.

N. C., Whitakers—City receives bids Apr. 8 for street improvements; Spoon & Lewis, Const. Engrs., Greensboro.

N. C., Winston-Salem—City, Harry L. Shaner, Commr. of Public Works, plans expending \$238,971 toward widening and extending Third St.; total cost \$468,571.

Okl., Muskogee—City, Street Improvement Dist. No. 205, receives bids May 27 for 1400 sq. yd. conc. paving; preparing plans; Hugh Dickson, City Engr.

Okl., Newkirk—Kay County Commrs. plan graveling about 6 mi. Braman-Peckham road; \$24,000 appropriated; J. S. Clark, Engr.

South Carolina—State Highway Dept., Ben M. Sawyer, State Highway Commr., Columbia, received low bids, \$280,000, for 6 roads and 5 bridges: Aiken County—3.785 mi. Route 1, Clearwater to Augusta, Robt. G. Lassiter & Co., Citizens Bank Bldg., Raleigh, N. C., \$91,125; Charleston County—15 mi. Route 2, north of Charleston, L. S. Mitchell, Walterboro, \$8,538; Colleton County—0.65 mi. Route 17, Great Swamp, L. S. Mitchell; Orangeburg County—9.318 mi. Route 21, Rowensville to Branchville, H. C. Morrison, 112 Eighth St., Augusta, Ga., \$35,208; Newberry-Saluda Counties—1.128 mi. Route 391, approaches to Big Saluda and Little Saluda Rivers, Suber Construction Co., Whitmore, \$9,029; Sumter County—culverts on Routes 54, 76 and 763, L. S. Mitchell; Aiken County—timber bridges over Hollow Creek, A. S. King, Greenwood; Anderson County—conc. bridges over Rocky and Cox Creeks, Small & Triplett, Orrville, Ala., \$31,456; Kershaw County—conc. bridge over Lynches River, Palmer Construction Co., \$14,798; Lexington County—conc. bridge over Factory pond, Lancaster & Yandell, Pineville, N. C., \$10,453.

S. C., Columbia—Richland County considering expending \$275,000 to pave various roads, including 3.5 mi. Asylum road; 2 mi. Leesburg road; 5 mi. old Winnsboro road; 1 mi. Trenholm road. See Financial News Columns.

S. C., Rock Hill—City, W. P. Goodman, Mgr., considering extending Oakland Ave. East Main to Black St.; estimated cost \$12,000.

Tennessee—Dept. of Highways and Public Works, R. H. Baker, Commr., Nashville, plans tentatively grading and draining 4 roads, costing \$45,000; 2.2 mi. Love's Creek road, Chillowee School to Millertown; 2.5 mi. extension Everett road, Black Oak ridge crest to Hickory Creek; 1 mi. connection of Campbell Station road; 2.5 mi. Lowes Ferry road extended to West Ferry road.

Tenn., Alamo—Crockett County considering expending \$750,000 for improving highways. See Financial News Columns.

Tenn., Blountville—Dept. of Highways and Public Works, R. H. Baker, Commr., Nashville, receives bids Apr. 19 for 18-ft. Bristol-Bluff City Highway, Sullivan County.

Tenn., Dyersburg—Dyer County plans expending \$1,000,000 for 200 mi. gravel roads; L. L. Pace, Clk., County Court. See Financial News.

Texas—State Highway Dept., R. S. Sterling, Chmn., Austin, receives bids, probably Apr. 23, for roads: Galveston County—3.787 mi. rein. conc., Highway No. 6-A, from intersection Highway No. 6, Galveston-Houston Highway to Texas City, estimated cost \$178,000; C. C. Washington, County Engr.; Cottle County—12.806 mi. grading, draining Highway No. 4, Paducah to King County line, estimated cost \$32,000; Geo. E. McDaniel, Jr., Res. Engr.; Gibb Gilchrist, State Highway Engr.

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, allowed \$35,866 for highway and underpass in Matagorda County: 9.6 mi. grading, draining, Highway No. 71, from underpass on St. Louis, Brownsville and Mexico R. R., to Wharton County line; grading, draining and underpass on Highway 58; Gibb Gilchrist, State Highway Engr.

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids Apr. 24 for 10 roads, 5 bridges and overpass: Montgomery County—6.325 mi. 20-ft. rein. conc. Highway No. 10, Willis to Walker County line; J. R. Spiller, Res. Engr.; Jones County—5.123 mi. grading, draining, conc. Highway No. 30, Austin to end of Federal Aid Project No. 493-A; J. W. Puckett, Res. Engr.; Dallas County—6.074 mi. grading, draining, Highway No. 15, Kaufman County line to Sta. 583; separate bids on large bridges: W. F. Pass, Res. Engr., Terrell; Hall County—1.934 mi. grading, draining, Highway No. 5, rein. conc. and steel bridge across Prairie Dog Town Fork of Red River, and cons. overpass; W. A. French, Div. Engr., Amarillo; Uvalde County—9.661 mi. gravel and caliche surface, Highway No. 55, Uvalde to Zavalla County line; D. W. Hooper, Res. Engr.; Jim Wells County—352.33 ft. conc. drainage structures near Alice; C. E. Wright, Res. Engr.; Childress County—3.801 mi. grading, draining, and large bridges, Highway No. 4, Cottle County line to Childress; S. D. Bacon, Res. Engr.

In Hardin and Jasper Counties—creosoted timber pile trestle, steel and rein. conc. bridge across Neches River, Highway No. 8, between Hardin and Jasper Counties; C. P. Hunter,

Res. Engr.; Jones County—15.179 mi. grading, Highway No. 4, intersection with Highway No. 30, near Annona northwest to Hamlin; J. W. Puckett, Res. Engr.; Cottle County—20.06 mi. grading, draining, Highway No. 4, Paducah to Childress County line; M. E. Savage, Res. Engr., Gillespie County—26 conc. drainage structures on 27.63 mi. Highway No. 9, county line to county line; grading and surfacing approaches to new structures; S. S. Posey, Res. Engr.; Lavaca County—rein. conc. bridges on 9.918 mi. Highway No. 109, between Henkhaus and Midway; W. H. Koether, Res. Engr.; Falls; Falls County—bridge across Pole Cat Creek, Highway No. 14, 2 mi. from Kosse, five 28-ft. steel I-beam spans, conc. floor on timber piling; E. C. Woodward, Div. Engr., Waco; Gibb Gilchrist, State Highway Engr.

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids Apr. 23 for 5 roads: Archer County—9.339 mi. rein. conc., Highway No. 79, Sec. C, Archer City to Sta. 494; 8.978 mi. Sec. D, Sta. 494 to Wichita County line, Guy R. Johnston, Res. Engr. Foard County—10.212 mi. grading, draining, Highway No. 28, Good Creek road to Cottle County line; Byron Reese, Res. Engr.; Cherokee County—5.948 mi. grading, draining, Highway No. 37, Jacksonville, to north line Road Dist. No. 1; G. A. Bracher, Res. Engr.; Bell County—1.951 mi. grading, draining, Highway No. 2, from point north of Salado to Amity School; A. W. Ashworth, Res. Engr.; Gibb Gilchrist, State Highway Engr.

Tex., Amarillo—City, Jeff D. Bartlett, Mgr., receives bids Apr. 9 to improve West Ninth St., Harrison to Van Buren.

Tex., Anson—Jones County, Owen Thomas, Judge, plans 9.659 mi. grading, draining, Highway No. 4, from Sta. 420 northwest to Hamlin; J. W. Pickett, Res. Engr., Stamford.

Tex., Anson—Jones County, Owen Thomas, Judge, plans 17.484 mi. caliche base, 20-ft. wide, triple bit. surface treatment, Highway No. 30, south of Stamford; J. E. Puckett, Res. Engr., Stamford.

Tex., Archer City—Archer County, H. V. Pearson, Judge, plans 18.757 mi. rein. conc. pavement, Highway No. 30, Baylor County line to Wichita County line, estimated cost \$480,000; Guy R. Johnston, Res. Engr.

Tex., Belton—Bell County, Owen P. Carpenter, Judge, plans 1.961 mi. grading, draining Highway No. 2, from point north of Salado to Amity School House, estimated cost \$21,500; A. W. Ashworth, Res. Engr.

Tex., Brownwood—State Highway Dept., Austin, plans starting, within 30 days, \$3,000,000 highway project in Brown County; improve Highway No. 10, Fort Worth to Brownwood road, from Red River to Del Rio, on Rio Grande River, through Brady, and near junction; plans paving 100 mi. state highway and improving lateral roads.

Tex., Cameron—Milam County, Jeff T. Kemp, Judge, plans 15.067 mi. gravel with bit. surface, Highway No. 43, Taylor-Hearne road, from point near Milano through Rockdale, estimated cost \$175,000; A. F. Mitchell, Res. Engr.

Tex., Canton—Van Zandt County Commrs. Court considering expending \$1,500,000 to improve highways. See Financial News.

Tex., Canyon—Randall County, B. F. Fronabarger, Judge, plans 16.637 mi. grading, draining, Highway No. 9, Canyon to point near Happy, at Swisher County line; A. E. Dyatt, Res. Engr.

Tex., Carrizo Springs—Dimmit County, E. L. O'Meara, Judge, plans 22.3 mi. 1/2-in. rock asphalt surface, Highway No. 85, from Dimmit County line to point east of Carrizo Springs, estimated cost \$49,500; J. G. Lott, Res. Engr.

Tex., Carrizo Springs—Dimmit County, E. L. O'Meara, Judge, plans 10.833 mi. gravel surface Unit 2, Highway No. 55, Zavalla County line to point south of Carrizo Springs; J. G. Lott, Res. Engr.

Tex., Carthage—Panola County, J. G. Strong, Judge, plans surfacing Highway No. 64 from end of paving to point 1 mi. from Carthage, estimated cost \$13,000.

Tex., Center—City, T. D. Kimbro, Sec., plans street paving; Hawley & Freese, Consit. Engrs., 411 Capps Bldg., Fort Worth. See Financial News Columns.

Tex., Cold Springs—San Jacinto County, D. M. Love, Judge, plans grading, draining Highway No. 45, Walker County line via Cold Springs to Shepard.

Tex., Conroe—Montgomery County, Perry McComb, Judge, plans 6.325 mi. rein. conc., Highway No. 19, Huntsville-Houston road, Wallis to Walker County line, cost about \$100,000; J. R. Spiller, Res. Engr.

Tex., Crockett—Houston County, Leroy L. Moore, Judge, plans 10.3 mi. grading, draining Highway No. 19, Grapeland Road Dist.,

from Crockett Road Dist. line to Anderson County line, estimated cost \$35,000; F. J. Von Zuben, County Engr. See Financial News Columns.

Tex., Eagle Pass—Maverick County plans .6 mi. gravel surface, creosoted timber pile trestle bridge, earth approaches, Highway No. 85, across Canon Grande Creek, 18 mi. north of Eagle Pass.

Tex., Floydada—Floyd County Precinct No. 2 considering expending \$25,000 for roads; building and extending State Highway No. 53, from Lubbock to Clarendon, via Idalou, Pettersburg, Lockney, Sterley, South Plains and Silverton, paralleling Fort Worth and Denver South Plains Ry.; rebuild and maintain cardinal lateralroads in precinct. See Financial News Columns.

Tex., Fort Worth—City, O. E. Carr, Mgr., received low bids at \$81,602 to pave 10 streets with rock asphalt, coarse aggregate, General Construction Co.; West Texas Construction Co., both Cotton Exchange Bldg.; Hughes & Everett.

Tex., Freestone—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids in April for 17.4 mi. grading, draining, Highway No. 32, Freestone County, south of Fairfield, from Leon County line to Fairfield, cost about \$160,000.

Tex., Galveston—Galveston County plans 3.787 mi. grading, draining, rein. conc., Highway No. 6-A, from intersection with Highway No. 6, Houston-Galveston road, to Texas City; C. C. Washington, County Engr.

Tex., George West—Live Oak County, C. B. Beard, Judge, plans building lateral county roads; \$137,000 available.

Tex., George West—Live Oak County, C. B. Beard, Judge, plans 44.5 mi. grading, draining, high type paving Highway No. 9, Atascosa County line to Jim Wells County line; cost about \$450,000.

Tex., Goliad—Goliad County, J. A. White, Judge, plans 16.355 mi. grading, draining, Highway No. 119, Goliad to DeVitt County line, estimated cost \$100,000; V. N. Schultz, Res. Engr.

Tex., Groveton—Trinity County plans gravel or crushed stone base and double application of asphalt topping, Highway No. 94, from Groveton to Angelina County line; will sell bonds.

Tex., Hempstead—State Highway Comm., R. S. Sterling, Chmn., appropriated funds to gravel surface Highway No. 6, Hempstead to Harris County line, Waller County; estimated cost \$19,600.

Tex., Houston—City considering permanent paving Buffalo Drive, Sam Houston Park to Shepherd Drive, 56 ft. wide, 6-in. conc. base, 2-in. asphaltic topping, estimated cost \$286,000; paving Wheeler St., 35 ft. wide, Alameda to Main, cost \$15,300; paving Beauchamp St., White Oak to North Main, West Eleventh St. Heights to Lawell; J. C. McVea, City Engr.

Tex., Houston—Harris County, H. L. Washburn, County Auditor, receives bids Apr. 8 to grade and shell driveways and sidewalks at Harris County School for Girls; Charles R. Halle, County Engr.

Tex., Houston—Harris County, H. L. Washburn, County Auditor, receives bids Apr. 15 to improve 3 roads: Resurface, surface treat, conc. culvert and pipe and grading, Tomball-Waller road; resurface with shell, surface treat and conc. pipe, Tomball-Huffsmith road; Charles R. Halle, County Engr.

Tex., Houston—Harris County, Norman Atkinson, Judge, plans 1.885 mi. grading, draining, paving, Highway No. 3, McCarthy to Wallisville Road, estimating cost \$60,000; A. J. Wise, County Engr.

Tex., Houston—Harris County, Norman Atkinson, Judge, plans 1.947 mi. grading, draining, paving, 20-ft. wide, Highway No. 3, Wallisville to Federal Aid Project No. 80; cost about \$90,000; A. J. Wise, Res. Engr.

Tex., Houston—Harris County, Norman Atkinson, Judge, plans roads: 7.657 mi. grading, draining, conc. paving, Highway No. 3, Crosby road, Spring Gully to San Jacinto River, estimated cost \$308,000; 10.5 mi. shell shoulders, Highway No. 6, Houston-Galveston road, estimated cost \$40,000; A. J. Wise, Res. Engr.

Tex., Houston—Harris County, Norman Atkinson, Judge, receives bids soon to top San Jacinto St., La Porte, from Five-Points, in center of town to Sylvan Beach gates.

Tex., Jasper—Jasper County considering expending \$150,000 for roads in Road Dist. No. 2. See Financial News Columns.

Tex., Laredo—City, A. R. Garcia, City Sec., expend \$50,000 for 15 blocks paving, on Washington, Victoria St., Santa Ursula, Santa Dario and San Eduardo Ave., etc.

Tex., Palestine—Anderson County, E. H. Shelton, Judge, plans 11 mi. grading, drain-

ing Highway No. 19, Montalba to Henderson County line, estimated cost \$107,000; C. H. Kandall, Res. Engr.

Tex., Perryton—City plans expending \$48,000 for 14 blocks paving in business district. See Financial News.

Tex., Plemons—Hutchinson County, H. M. Hood, County Judge, plans 20 mi. high type pavement, Highway No. 117, Stinnett to Hansford County line, estimated cost \$320,000.

Tex., Raymondville—Willacy County, A. B. Crane, County Judge, plans expending \$400,000 for roads in Road Improvement Dist. No. 1. See Financial News Columns.

Tex., Rusk—Cherokee County, J. J. Bolton, Judge, plans 7.6 mi. grading, draining Highway No. 43, Jacksonville to Henderson County line, estimated cost \$61,000; G. A. Bracher, Res. Engr.

Tex., San Antonio—City, C. M. Chambers, Mayor, plans opening Probandt St., Cavallos to South Alamo; widening Main Ave. and Giraud St.; I. Ewig, City Engr.

Tex., San Antonio—City, Comm., C. M. Chambers, Mayor, appropriated \$488,566 for bridges, paving, opening and widening streets, for flood protection, etc.: Extend Losoya St., West Commerce to Villita St.; widen Main Ave., Rodriguez to Roman Plaza, Bridges over San Antonio River—Convent St., Richmond Ave., Ninth St.; Guilbeau St.; I. Ewig, City Engr.

Tex., San Antonio—City, C. M. Chambers, Mayor, receives bids Apr. 8 to improve 3 streets: Richmond Ave., Augusta to Auditorium Grounds; South Salado St., El Paso to Buena Vista; East Houston St., Cherry to New Braunfels; I. Ewig, City Engr.

Tex., San Antonio—City, C. M. Chambers, Mayor, considering widening to 39 ft., paving on Houston St., North Cherry St. to North Braunfels Ave.; I. Ewig, City Engr.

Tex., Shamrock—Wheeler County will build hard-surfaced road from Mobeetie to State Highway No. 4.

Tex., Sulphur Springs—Hopkins County considering expending \$610,000 for roads. See Financial News.

Tex., Tyler—Smith County plans 5.75 mi. repair base and asphalt surface treat, Highway No. 57, end of conc. pavement 4 mi. south of Tyler to Flint; D. L. Hogan, Div. Engr.

Tex., Wharton—Wharton County, John Norris, County Judge, receives bids April 9 to grade, drain, and pave with conc., or conc. base, limestone rock asphalt top, 16 mi. highway from Wharton to Matagorda County line, through Boling; J. M. Nagle, County Engr.

Virginia—State Highway Dept., H. G. Shirley, Commr., Richmond, received low bids for 2 roads and bridge: Norfolk County—4.9 rock asphalt, Route 27, Robert O. Lassiter & Co., American Bk. Bldg., Greensboro, N. C., \$73,042; Spotsylvania County—38 mi. gravel, Route 38, J. J. Hicks & Bro., Devington, \$86,338; Henrico County—180-ft. Bottoms Bridge, Route 39, Al. Baird, Richmond, \$11,521. 3-14

Va., Hopewell—City, Roy S. Braden, Mgr., plans paving Commerce, East Broadway and City Point road. 3-14

Va., Norfolk—City, I. Walke Truxtun, Mgr., expending \$17,600 for curb, gutter and paving. See Financial News.

Va., Richmond—City, R. Keith Compton, Dir. of Public Works, considering smooth-paving Main St., Cherry to Boulevard, and from Seventh to Fourteenth St.

Va., Richmond—City, R. Keith Compton, Dir. of Public Works, completed plans to widen Hermitage Road, to 100-ft. driveway, from Westwood Ave. to corporate line north of Bellevue Ave.; cost about \$100,000.

W. Va., Charleston—City, J. O. Summers, Clk., plans letting contract, May 20 or June 3, to pave 23 streets, including, Elm, First, Lincoln.

W. Va., Fairmont—City Bd. of Directors considering 8-in. slab or 5-in. conc. base, brick surface paving, Maple Ave., Pennsylvania Ave. to point beyond Anderson St.; S. B. Miller, City Engr.

W. Va., Grafton—State Road Comm., W. S. Downs, Dist. Engr., Morgantown, considering surfacing 2 mi. Northwest Turnpike between Blueville and Fetterman.

W. Va., Huntington—Cabell County plans expending \$300,000 for road building. See Financial News.

W. Va., Middlebourne—Tyler County Court, J. E. Smith, Clk., expend \$200,000 for roads in McElroy Road Dist. See Financial News. 2-7

W. Va., Salem—Town considering surfacing with asphalt principal street.

Contracts Awarded

Ala., Mobile—City Comm., S. H. Hendrick, City Clk., let contract to Hodgson & Jones, \$14,330 to pave Carter Hill road, from St. Claire to Mulberry St.

Fla., Bronson—Levy County Commrs. let contract for 5 roads: To Gilbert & Handsock, \$27,373—1.8 mi. road along County line, connecting with Raleigh-Wachahoota road, at McFars corner; 1.8 mi. continuing Raleigh-Wachahoota road to County line; 4½ mi., from point south of Alachua County line to Marion County line, connecting Wachahoota road with Micanopy road; to L. B. McLeod Construction Co., 416 Tampa St., Tampa, \$74,399—7 mi. road from Marion County line to Inglis; 10 mi., from Lebanon Station to Inglis.

Ky., Greenup—Haley, Chisholm & Morris Construction Co., Charlottesville, Va., reported, have contract to relocate Greenup County highway, build Baseland-Worthington C. & O. undergrade crossing, construct Russell C. & O. underpass.

Ky., Paducah—State Highway Comm., Frankfort, let contract to N. E. Stone & Co., Madisonville, \$38,886, for 1.245 mi. 20-ft. rein. conc. paving, using gravel aggregate, Paducah-Brookport Landing road, McCracken County. 3-21

La., Many—Louisiana Highway Comm., O. K. Allen, Chmn., Baton Rouge, let contract to Sam B. Boyd, Columbia, Miss., for 7,920 mi. gravel, Many-Texas Highway, Sabine Parish. 3-21

Missouri—State Highway Dept., Jefferson City, let contract to Howerton Engineering Co., Haywood Rd., Asheville, N. C., \$258,000 to cement and gravel Highway No. 66, Lebanon to Webster County line; to Pope Construction Co. for 10-ft. slab on Highway No. 54 leading from Highway No. 40, Kingdom City toward Maxico.

Okla., Oklahoma City—Oklahoma County Commrs. let contracts to gravel 9 mi. Section 10, between Harrah and end of paving; Maney & Alley, \$15,000 to gravel miles 21 to 24 inclusive; Tom L. Green, \$17,980, for miles 25 to 29; R. S. James, Engr.

Okla., Tulsa—Tulsa County Commrs. let contract to Roy Tanner Paving Co., 1244 N. Main St., \$36,519, for 1½ mi. paving North Harvard Ave.

S. C., Anderson—City Council let contract to C. R. Johnson, for about 5,000 ft. curbs and gutters.

Tex., Harlingen—City Comm. let contract to Nutter & Tolliver, 18½ cents per sq. ft. for 3,600 ft. conc. sidewalks on Van Buren, Second and Jackson St.

Tex., San Antonio—City, C. M. Chambers, Mayor, let contract totaling \$76,212 to improve 7 streets to Alamo Paving Co., 321 Dawson St.; Uvalde Rock Asphalt Co., 1128 N. Mesquite St.; Southwest Bitulithic Co., 302 Castro St.; Colglazier & Hoff, Inc., 125 Crosby St. 3-14

Tex., San Benito—City, J. Scott Brown, Mayor, let contract to Dodds & Wedegartner, San Benito, for 553 sq. yd. conc. pavement at \$2.45 per sq. yd. and 629 lin. ft. conc. curb at 30 cents per ft.

Tex., Weatherford—Parker County Commrs. Court let contract to Boyd Pitchford for 400 sq. yd. rock around south pier of High-tower Bridge over Brazos River.

W. Va., Spencer—Roane County Court let contract to Abbott Construction Co., Charleston, \$17,602, for 1½ mi. grading and draining, Spencer-Ripley road, Curtis Dist.

Sewer Construction

Sewer construction in LAND DEVELOPMENT projects involves the expenditure of large sums of money. Under that classification details of these improvements are reported.

Ala., Aliceville—Gobson & Humphreys, Omaha, Neb., low bidders at \$21,000 for sewerage system; Robert & Co., Inc., Engrs., Bona Allen Bldg., Atlanta, Ga. 3-14

Ala., Gadsden—Kelly-Wilson Co., Jackson Bldg., Asheville, N. C., has contract at \$98,263 for laying approximately 38,535 ft. sanitary sewers; Robert & Co., Inc., Engrs., Bona Allen Bldg., Atlanta, Ga.

Ark., Harrison—G. C. Coffman, Special Sewer Committee, contemplates sewage disposal plant and enlarging sewer system.

D. C., Washington—Warren F. Brenizer Co., 101 New York Ave., N. E., has contract for Seward Square replacement sewer, Fifth St. and Pennsylvania Ave., S. E.

Ga., Milledgeville—Trustees of Georgia State Sanitarium invites bids April 18 for

sanitary sewer on grounds of Georgia State Sanitarium. See Want Section—Bids Asked.

Ky., Bardstown—City receives bids April 29 for 20,000 ft. of sewers. See Want Section—Bids Asked.

Ky., Benton—City plans water works and sewer system; cost \$60,000.

Ky., Harrodsburg—City Mgr. receives bids May 1 for vlt. sewers and treatment plant. See Want Section—Bids Asked.

La., Arcadia—Town, B. F. Barnette, Mayor, voted to install sewerage; erect disposal plant; open bids for construction in about 60 days; J. A. Lupo, Engr., Homer. 3-7

La., Many—Bd. of Aldermen receive bids April 16 for material and labor for sewer system. See Want Section—Bids Asked.

La., Pineville—Town receives bids April 9 for completion of sewer system. See Want Section—Bids Asked.

Md., Baltimore—Bd. of Awards, receives bids April 10 for storm water drains south of Key Highway and McComas St. to bulkhead of McComas St. See Want Section—Bids Asked.

Md., Cascade—Bureau of Sanitary Engineering, Maryland State Dept. of Health, 2411 N. Charles St., Baltimore, Md., receives bids April 15 for sewers and sewage treatment plant at Camp Albert C. Ritchie. See Want Section—Bids Asked.

Md., Chestertown—City considering \$25,000 sewer bond issue.

Miss., Clinton—See Roads Streets, Paving.

Mo., Fredericktown—City authorized W. A. Fuller Co., Engrs., Railway Exch. Bldg., St. Louis, to prepare plans and specifications for sanitary sewer system; cost \$100,000.

N. C., Charlotte—City Commrs., reported, may authorize extension of Murray Construction Co.'s contract to provide for storm drains and sanitary sewers on portions of Concord, Pineville and dRozelle Ferry Rd.

N. C., Charlotte—City, Wm. M. Piatt, Conslt. Engr., Durham, let contract for pipe for Briar Creek outfall sewer, to W. S. Dickey Clay Manufacturing Co., Chattanooga, Tenn., and Lynchburg Foundry Co., Lynchburg, Va., contract includes 5000 ft. of 36-in., 10,000 ft. of 30-in., 10,000 ft. of 27-in., 5000 ft. of 24-in., 4000 ft. of 18-in., 2000 ft. of 15-in., and 3000 ft. of 12-in. pipe and 400 tons of c. l. pipe; Tucker & Laxton, Gen. Contrs., Charlotte.

N. C., Mocksville—See Water Works.

Okla., Muskogee—Hogle & March, Muskogee, has contract for 8-in. sanitary sewers, Dist. 102. 3-28

S. C., Saluda—Carolina Conc. Pipe Co., Rozelle Ferry Rd., Charlotte, N. C., reported low bidder to furnish 12½ miles of pipe for sanitary sewer system.

Tenn., Bruceton—See Water Works.

Tex., Austin—Kirkwood, Wharton & Lee, 456 Main St., San Antonio, has contract at \$20,000 for sanitary sewers, Contr. No. 1 and at \$32,061 for Contr. No. 2; W. E. Dozier Construction Co., Austin Natl. Bank Bldg., Contr. No. 3 at \$26,737 and Contr. No. 4 at \$45,310.

Tex., Houston—C. D. Yakely, reported, low bidder at \$10,922 for storm sewers on Chartres Blvdget to Cleburne; city plans storm sewer on N. MacGregor Way from Scott to Leeland.

Va., Richmond—Following contracts let for 4 sewer projects forming major part of 1929 sewer extension program: Woodland Heights—Guthrie & Deaner, 2205 Maplewood Ave., at \$3354; Hermitage Rd.—Hughes & Keekan, Real Estate Exch. Bldg., at \$10,182; Brookdale—Van Doren Bros., Hilliard & Hermitage Rds., at \$43,971; West of Belt Line, W. J. McLane, 431 Calhoun St., at \$85,091.

W. Va., Fairmont—O. G. Gericke, Gen. Mgr., Domestic Coke Corp., Norwood, and associates interested in construction sanitary sewer at Norwood.

W. Va., Parkersburg—C. B. Holsclaw, Morrison Bldg., Charleston, low bidder at \$35,751 for constructing Riverside trunk line sanitary sewer.

W. Va., Princeton—City Council will call election on or about July 1 for sewage disposal plant to cost \$70,000; J. Paul Blundon, Kiser, W. Va., Engr. in Charge.

Telephone Systems

D. C., Washington—Constructing Quartermaster, Bolling Field, establish \$30,000 radio and communication center; 2-story, brick; private plans.

Ky., Flemingsburg—Flemingsburg Telephone Co., capital \$35,000, incorporated; C. R. Carr, Virginia H. Lytle.

Ky., Frankfort—Greenup County Home Telephone Co., capital \$20,000, incorporated; Frank C. Mallin, D. B. Corman.

Md., Baltimore—American Telephone and Telegraph Co., 195 Broadway, New York, reported, called meeting of stockholders for April 30 to authorize issue of convertible bonds, not to exceed \$25,000,000; to be issued to stockholders at terms to be fixed on authorization; to provide approx. \$75,000,000 for payment of collateral trust bonds of company due on July 1, and for new construction needed by Bell System; stockholders, reported, approved increasing authorized common stock, \$1,500,000,000 to \$2,000,000,000 to take care of additional offerings of stock in future.

Miss., Gulfport—Southern Bell Telephone and Telegraph Co., Atlanta, Ga., let contract to Barge-Thompson Co., 136 Ellis St., N. E., Atlanta, for \$20,000 addition to telephone exchange building; work to begin in few days.

Mo., Joplin—Southwestern Bell Telephone Co., St. Louis, George A. Smith, Dist. Mgr., immediately establish link in chain of 2500 mi. long distance subways to connect principal cities in Southwest, between Joplin, Webb City, Cartersville and Carthage; cable to contain 300 pairs of wires; place 157 man-holes along route; complete by Jan., 1930.

Tex., Beaumont—Kidd-Russ Trunk and Bag Co., 722 Pearl St., applied to Federal Radio Comm. for permission to construct broadcasting station.

Tex., Dallas—Western Telephone Co. incorporated; C. E. Kennemer, 4901 Cole St.

Tex., Lufkin—Lufkin Telephone Exchange, capital \$75,000, incorporated; E. J. Mantooth, N. D. Shands.

Va., Farmville—Farmville Telephone Co. expend \$10,000 for improving system in city and vicinity.

Va., Richmond—Chesapeake & Potomac Telephone Co. of Virginia let following sub-contracts for telephone building, Seventh and Grace Sts.: Ornamental iron, Richmond Structural Steel Co.; rein. bars, Virginia Steel Co., both 17th and Dock Sts.; lumber, Hueber & Co.; sand, gravel and cement, Warner Moore & Co., 17th and Dock Sts., all Richmond; elevators, Otis Elevator Co., 120 S. Paca St., Baltimore, Md.; waterproofing, Waterproofing Co., 345 E. 33rd St., New York City; Magnolia cement, Southern Cement Co., American Tr. Bldg., Birmingham, Ala.; general contract let to Consolidated Engineering Co., 20 E. Franklin St., Baltimore, Md. 3-21

Textile Mills

Ark., Warren—Pauline Hosiery Mill, W. M. Graham, Sec.-Mgr., soon begin constructing second unit of hosiery mill; manufacture hosiery from rayon thread. 3-23

Ga., Cedartown—Goodyear Tire and Rubber Co., Akron, Ohio, let contract to Saco-Lowell Shops, Boston, Mass., for long draft spinning and complementary machinery. 2-21

Ga., Rockmart—Goodyear Tire and Rubber Co., Akron, O., C. Slusser, V. P. and Production Mgr., will erect \$5,000,000 tire fabric plant at Rockmart, 14 miles north of Cedartown; 50,000 spindle capacity; acquired 350 acre site; erect 400 employee houses; Robert & Co., Inc., Engrs., Atlanta, reported, preparing plans. 3-28

Ga., Thomaston—Virginia Bridge & Iron Co., Roanoke, Va., reported, has contract for 1100 tons of fabricated struc. steel for Martha Mills addition of B. F. Goodrich Rubber Co., Akron, O.; Batson-Cook Co., Inc., Gen. Contr., West Point. 3-21

Miss., Booneville—Sam W. Tapscott, Pres., Chamber of Commerce, reported, interested in establishment of cotton mill, 12,000 spindles and 400 looms; brick, conc. and steel.

Miss., Waynesboro—J. W. Sanders, 2405 Poplar Springs Road, Meridian, reported, establish 12,000 spindle cotton mill.

N. C., Burlington—Full-Knit Hosiery Mills Inc., R. O. Sellars, has building will install \$42,000 machinery purchased from Scott & Williams, Inc., 366 Broadway, New York, weekly capacity 2000 doz. prs. hosiery. 3-28

N. C., Charlotte—Fleetwood Silk Hosiery Corp. let contract to T. C. Thompson & Bros., 609 N. Smith St., Charlotte, for \$34,000 textile mill, Brevard and Twenty-eighth Sts., N. Charlotte; brick, rein. conc., 2 story, fire-proof, with adjacent boiler house; install \$275,000 worth equipment, including 28 knitting machines; Lockwood Greene Engineers, Inc., 100 E. 42nd St., New York, Engrs. 3-14

N. C., Greenville—Greenville Cotton Mills let contract to G. W. Kane, Roxboro, for addition to mill; J. E. Sirrine & Co., Engrs., Greenville, S. C. 3-28

N. C., Yadkin—J. E. Sirrine & Co., Greenville, S. C., preparing plans for addition to North Carolina Finishing Co.'s plant; 75x130 ft.; 1 story and basement; daylight construction.

N. C., Greensboro—Crutchfield-Sullivan Co. has contract for heating for mill addition for Mock-Judson-Voehringer Hosiery Co.; Hunt Bros., 407 Walker Ave., for plumbing; Harold Ross for electrical work; W. W. Dick, 246 Bellemeade St., for sprinkler system; Walter Kidde & Co., Inc., Jefferson Bldg., Gen. Contr. 3-21

N. C., Henry River—Henry River Mills Co., capital \$250,000, incorporated; D. E. Rhyne, Lincolnton; W. H. Belk, Hawthorne Lane, Charlotte.

N. C., Wilkesboro—Wilkes Hosiery Mills Co. erect 3-story addition; install machinery.

South Carolina—United Merchants and Manufacturers, Inc., Homer Loring, Pres., 31 Milk St., Boston, Mass., reported, arranged for purchase of group of Southern mills, having total of 102,000 spindles; mills are Langley Mills, Langley; Aiken Mills, Bath, and Seminole Mills, Clearwater; plants manufacture cotton goods; will modernize machinery; acquisition will provide water rights for finishing, bleaching, dyeing and printing.

S. C., Chesnee—Chesnee Mills, let contract to Bahnsen Co., Wachovia Bank Bldg., Winston-Salem, N. C., for installing humidifiers in weave and cloth room; Lockwood Greene Engineers, Inc., 100 E. 42nd St., New York, and Charlotte, N. C. 2-28

S. C., Spartanburg—Lockwood Greene Engineers, Inc., Montgomery Bldg., expects to have plans ready for bids in about 8 weeks on new plant for Fairforest Finishing Co.; cost about \$1,000,000. 3-21

Tenn., Bemberg, P. O. Elizabethton—American Glantzstoff Corp., P. O. Box 8, let contract to B. G. Young & Co., Johnson City, for excavation work on second unit of plant; cost \$7,000,000; O. Oppenlander of company's staff in charge of work; Lockwood Greene Engineers, Inc., 100 E. 42nd St., New York, retained for drawing plans and supervising construction. 3-28

Tenn., Birchwood—Jefferson Campbell interested in establishment of hosiery mill; citizens to subscribe \$30,000. 3-21

Tenn., Crossville—Judge J. R. Mitchell negotiating with John C. Wellwood for establishment of silk ribbon mill.

Tenn., Nashville—T. Walter Fred, Chattanooga, owner of Walter Fred Hosiery Mills, Inc., install 42 and 48 gauge Schubert & Salver high speed type knitting machines in plant under construction. 3-21

Tex., New Braunfels—James McDowell, 917 City National Bank Bldg., San Antonio, Tex., and associates, construct textile mill, manufacture cotton, silk and mohair; cost \$1,000,000; site of 12 acres front on Comal River; weaving mill, 396x200 ft., with 12,610 spindles and 232 looms; spinning silk mill, 85x290 ft.; also may establish wool scouring plant.

Va.-Tenn., Bristol—Mutual Thread Co., 17 W. 17th St., New York City, reported, establish thread mill; citizens to subscribe \$100,000 in preferred stock.

Water Works

Details of water works improvements in connection with the many LAND DEVELOPMENT operations will be found under that classification.

Ala., Gadsden—M. R. Boyce, Tampa, Fla., has contract at \$33,085 for laying approximately 32,000 ft. of c. i. water main in East Gadsden.

Ala., Montgomery—City receives bids April 23 for improvements to water works system. See Want Section—Bids Asked.

Ky., Benton—See Sewer Construction.

La., Baton Rouge—City, Wade H. Bynum, Mayor, will defer election called for April 2 to vote on bond issue for water plant.

La., St. Joseph—Town votes April 18 on \$40,000 water bonds; Swanson-McGraw, Inc., Engrs., Balter Bldg., New Orleans.

Miss., Carthage—Town receives bids April 19 for installing and laying water works; specifications etc. from Culley-O'Brien Engineering Co., Inc., 206 Lampton Bldg., Jackson.

Miss., Coldwater—City voted \$25,000 water works bonds.

Miss., Forest—City let contract to B. E. Walker Construction Co., 183 Glen Mary St., Jackson, for water works system; Rensselaer Valve Co., Troy, N. Y., for hydrants and valves; Chicago Bridge and Iron Works, Chicago, Ill.; for pumping equipment, Fairbanks-Morse Co., New Orleans, La.; rejected bids for pipe, call for new bids April 25. 2-28

N. C., Mocksville—Town, T. M. Hendrix, Clk., will make extensive additions to water and sewer system.

Okla., Erick—City receiving bids for \$125,000 water works; Clarence A. Wood, Engr., Medical Arts Bldg., Oklahoma City.

Okla., Olustee—City votes April 9 on \$24,000 water extension bonds.

Tenn., Bruceton—City votes April 11 on \$83,000 water and sewer bonds. 3-14

Tex., Beaumont—Smith & Whitney, 2017 Cedar Springs St., Dallas, has contract for pumps and motors for water works. 3-7

Tex., Christoval—T. L. Hamm, San Angelo, acquired water works from G. W. Lewis; will rebuild, increase storage and extend lines.

W. Va., Fairmont—City receives bids April 15 for erection of building for water department; J. Clyde Morris, Director of Water.

Woodworking Plants

Ark., Cotter—Frank Wiseman and associates let contract to Bob Tate for cedar pencil slat plant.

La., New Orleans—Forest-Wahden Sash and Door Co., 3505 D'Hemecourt St., acquired site adjoining present plant; erect addition.

Mo., Kansas City—Indiana Carriage Co., capital \$20,000, incorporated; Fred Meredith, 3329 Askew; wagons, carriages, autos, etc.

N. C., North Wilkesboro—Home Chair Co. erect plant; 90x105 ft.

Va., Danville—Novelty Furniture Co., R. P. Gravely, Pres., expend \$25,000 for enlarging plant.

Va., Marion—Charles C. Lincoln and John D. Lincoln, owners of Virginia Table Co., reported promoting store and factory merger; secured options on about 100 furniture stores throughout East, South and Middle West; add 2 units to Virginia Table Co. plant, besides 3 or 4 plants in other places which will join merger to manufacture furniture for huge furniture chain-store; headquarters to be in Marion.

FIRE DAMAGE

Ala., Carbon Hill—Domestic Laundry; Roy Copeland, Ensley, owner.

Ark., Newport—Following buildings at Newkirk: W. A. Edwards' store; Kate Magness' building; E. E. Allen's stores; loss \$25,000.

Fla., Key West—Ruy Lopez Cigar factory; loss \$100,000.

Ky., Beattyville—Power plant of Kentucky-Tennessee Light & Power Co.; loss \$36,000.

La., Alexandria—Portion of Pierce Petroleum Corp.'s plant; loss \$10,000.

La., Monroe—Dwelling, 108 Oakland St., owned by Dr. W. J. Hodge; loss \$8000.

La., Tallulah—D. E. Walker's residence.

Md., Chestertown—Three buildings of Hubbard Fertilizer Co. on Chester River; loss \$200,000.

Md., Pocomoke City—Warehouse of Marvel Packing Co.; loss \$35,000.

Miss., Greenwood—R. E. Matthews' Bldg., occupied by Crumont Cafe; Mrs. Billy Dantone's building.

Miss., Leflore—Dulweber Lumber Co.'s store.

Mo., Kansas City—Grace and Holy Trinity P. E. Church; loss \$50,000.

Mo., Liberty—Kappa Alpha Fraternity House at William Howell College; loss \$14,000.

Mo., Overland—Mrs. Felix Ertl's residence and vacant dwelling adjoining 2300 block Walton Rd.; loss \$14,000.

N. C., Rocky Mount—Annex of Ricks Hotel owned by T. L. Bland, Rocky Mount

Okla., Boynton—Portion of Transcontinental Oil Co.'s refinery; loss \$100,000.

Okla., Oklahoma City—Agricultural building at State Fair Grounds; loss \$10,000; Ralph T. Hemphill, Secy., State Fair Assn.

Okla., Purcell—Hawthorne Grade School; loss \$45,000. Address Bd. of Education.

Okla., Sand Springs—Five buildings and amusement stands in Sand Springs Park; C. C. Evans, Park Manager; loss \$50,000.

S. C., Chester—Sumter A. McWatters' residence, Landsford section of Chester County.

S. C., Greenville—Sloan Campbell's residence.

S. C., Yemassee—W. D. Hall's residence.

Tenn., Chattanooga—"Founder's Home" dormitory of McCallie Preparatory School; loss \$25,000.

Tenn., Coal Creek—J. W. Jarnigan's department store, loss \$30,000; Gilbert Cafe, \$10,000; Watts Drug Co.'s store; Coal Creek Motor Co.'s building; Nelson Auto Co.'s building; Lafollette Grocery Co.'s store and number of dwellings.

Tex., Brenham—John Kasprowiecz's residence, South Brenham; loss \$6000.

Tex., Bryan—M. J. Tremfont Feed Co.'s warehouse; loss \$10,000.

Tex., El Paso—Building at 313 S. Stanton St., occupied by Canton Grocery Co., Continental Furniture Co., White Cross Drug Store and Hotel Western; loss \$50,000.

Tex., Fort Worth—McDonald Bldg.; loss \$20,000.

Tex., Luling—Seed house of Luling Oil and Mfg. Co.

Tex., Ranger—Tank Car Shop of Chestnut and Smith Corp.; loss \$100,000.

Tex., San Angelo—Orient Hotel; loss \$10,000; Dan Bankston, Propr.

Tex., St. Paul—E. C. Seward's residence.

Tex., Yoakum—J. J. Jaresh's residence, W. Grand Ave.

W. Va., Bakerton—Apartment owned by C. D. Carter, Shepherdstown; loss \$10,000.

W. Va., Belington—Clyde Ballah's residence, Philippi Rd.; loss \$6000.

W. Va., Clarksburg—Morgantown Laundry Co.'s building, University Ave.; Price Furniture Store; Davison Bros. mortuary.

Tex., Port Arthur—Congregational Church, Rev. Lynn Squires, Pastor, care American Legion Hall, Lakeshore Drive, plans building.

Va., Richmond—Centenary Methodist Church, Rev. J. N. Latham, D. D., Pastor, raising \$80,000 for parish house; structure cost \$113,000.

Tex., San Antonio—First Baptist Church, H. L. Kokernot, Chmn., Bldg. Comm., plans bldg., Fourth St. and Avenue A; rein. conc., brick and steel, probably 4 stories, with foundation for 10 stories, about 100x295 ft.; Will N. Noonan Co., Archt., Builders Exch. Bldg.

City and County

Ark., Morrilton—Conway County votes Apr. 30 on courthouse bonds; Frank W. Gibb, Archt., Gazette Bldg., Little Rock. 2-28

D. C., Washington—District Commrs., Dist. Bldg., has appropriation for addition to Home for Aged and Infirm; brick, 2 stories, \$47,000; also has \$35,000 appropriation for branch library; brick, 2 stories; A. L. Harris, Municipal Archt., Dist. Bldg.

Fla., Ojus—Town erect town hall; D. Anderson Dickey, Archt., Ingraham Arcade, Hollywood.

Fla., Palatka—City erect \$40,000 library, gift of J. R. Mellon, Pittsburgh, Pa.

Fla., St. Petersburg—Chamber of Commerce Bd. of Governors recommended constr. of fireproof municipal stadium to City Commission.

La., Lafayette—City votes May 7 on library bonds. 2-14

La., New Orleans—City having plans completed by A. S. Montz, City Archt., City Hall, to remodel and equip Nix Memorial Library, Carrollton Ave. and Poplar St. 12-27

La., New Orleans—City receives bids Apr. 15 for shelter pavilion and comfort station, City Park; 1 story, tile roof; Weiss, Dreyfous & Seiferth, Archts., Maison Blanche Bldg.; following contractors estimating: Peter J. Perrin, 1928 LaHarpe St.; Wm. Wallace, Pere Marquette Bldg.; Chas. Gilbert, Canal Bk. Bldg.; Gervais F. Favrot, Balter Bldg.; J. A. Haase, Jr., 916 Union St.; H. J. Estrade, 7226 Washington Ave.; Peter Bordages, 2719 Lavender St.; Reilly-Ruckstuhl, Inc., 423 Carondelet St.; O'Neill La Beaud, 3336 Annette St.; H. Pratt Farnsworth, Canal Bk. Bldg.; plumbing estimators: Gore & Daubert, Inc., 835 Baronne St.; H. Cabirac, 636 Carondelet St.; Edw. Scheckler, 3908 Gen. Taylor St.; Edw. McGregor, 5121 Dryades St.; American Heating & Plumbing Co., 829 Baronne. 3-21

La., Port Allen—West Baton Rouge Parish Police Jury receives bids Apr. 10 for alterations and repairs to courthouse and jail; plans from office L. T. Bernard, Sec., Court-house Bldg. 1-31

Miss., Vicksburg—Warren County Bd. of Supvrs. plan \$60,000 bldg.; brick and conc., 2 or 3 stories.

Mo., Columbia—City, John A. Bicknell, City Clk., has preliminary plans by Eckel & Aldrich, Archts., Corby-Forshee Bldg., St. Joseph, for \$250,000 city hall; brick, 3 stories; Bill & Traher, Asso. Archts., 1008 Broadway, Columbia.

Mo., St. Louis—Board of Public Service, E. R. Kinsey, Pres., City Hall, receives bids Apr. 16 to complete Civil Court House; furnishing and installing cabinet work and furniture, heating and ventilation, plumbing and elect. work, \$800,000; plans, etc., from office Pres.; plans by Plaza Commission, Inc. 2-9-28

Mo., West Plains—Howell County Court call special election early in Summer on bonds for courthouse to replace burned structure.

Okla., Sand Springs—C. C. Evans, Park Mgr., erect park bldg. to replace structures noted burned at \$50,000 loss.

Okla., Tulsa—City, Dan W. Patton, Mayor, plans home for delinquent boys and girls.

Tenn., Knoxville—City Council voted \$19,000 for 2 branch libraries, Park City and Lonsdale.

Tex., Beaumont—Jefferson County Commrs. Court call an election first week in May on \$5,500,000 bonds, including \$900,000 for courthouse. 3-28

Tex., Marfa—Presidio County Commrs. Court remodel courthouse and jail; \$20,000; G. T. Gribb, Contr.

Tex., Palestine—Anderson County repair and clean courthouse; Theo. Maffitt, Archt.

Tex., Port Arthur—City Council will convert Mary Gates Hospital into city hall upon completion of St. Mary's Hospital for which contract was lately noted let.

Tex., San Antonio—City, C. M. Chambers, Mayor, erect \$13,500 wing to Witte Memorial

BUILDING NEWS

BUILDINGS PROPOSED

Association and Fraternal

La., Plaquemine—Plaquemine Council, K. of C., has low bid at \$23,430 from J. A. Haase, Jr., 916 Union St., New Orleans, for lodge and dance hall bldg.; Wm. R. Burk, Archt., Balter Bldg., both New Orleans. 3-21

Tenn., Chattanooga—Young Men's Christian Assn., F. C. Bickers, Chmn., Bldg. Comm., receives bids Apr. 15 for industrial branch, 16th St. and Mitchell Ave.; \$160,000, fireproof, rein. conc. frame, stucco and tile. 4 stories and basement, 87x125 ft., conc. floors and foundation, tile roof; swimming pool on first floor; Clarence T. Jones, Archt., James Bldg.; following contractors estimating: John Parks Co., Hamilton Bk. Bldg.; Orr-Barnes Construction Co., Volunteer Bldg.; Martin & Warlick Co., James Bldg.; Mark K. Wilson Co., Power Bldg.; T. S. Moudy Co., A. F. Hahn, both Chamberlain Bldg.; Geo. Becking & Son, James Bldg.; Rogers & Leventhal, Inc., 822 E. 11th St.; D. F. Brandon, James Bldg., all Chattanooga; Weaver & McGill, General Bldg., Knoxville. 3-21

Tex., Port Arthur—Hebrew Congregation, J. Jacobs, member, plans synagogue, Sixth and Mobile Sts.

Va., Hopewell—Hopewell Post, American Legion, plans clubhouse.

Bank and Office

Ky., Louisville—Fidelity & Columbia Trust Co., Inter-Southern Bldg., has permit for \$15,000 addition, 833-37 E. Broadway.

Md., Baltimore—Baltimore Life Insurance Co., Arthur R. German, Vice-Pres., 301 N. Charles St., having plans drawn by Mottu & White, Archts., 527 N. Charles St., for \$500,000 office bldg., Charles and Saratoga Sts.; to replace present structure; 6 stories; store on first floor. 2-28

Miss., Jackson—Following contractors estimating on \$1,000,000 Jackson Tower Bldg. for Pearl Realty Co., bids Apr. 15: T. S. Moudy & Co., Chamberlain Bldg., Chattanooga, Tenn.; W. J. McGee & Son, Lamar Bldg.; Estes-Reed Construction Co., Millsaps Bldg.; Garber & Lewis; W. G. Wetmore Construction Co., all Jackson, Miss.; Rust Engineering Co., 606 Grant St., Pittsburgh, Pa.; C. A. Moses Construction Co., Midland Bldg., Chicago, Ill.; O. M. Gwin Construction Co., Union Indemnity Bldg., New Orleans, La.; Southern Ferro Concrete Co., 70 Ellis St.; National Construction Co., Glenn Bldg., both Atlanta, Ga.; Bellows-Macley Construction Co., both Construction Industries Bldg., Dallas, Tex.; Struck Construction Co., 147 N. Clay St., Louisville, Ky.; H. A. McGuire & Co., Dermon Bldg.; B. E. Buffalo & Co., 658 East St.; Gauger-Korsmo Construction Co., Fidelity Bldg., all Memphis, Tenn.; Ferro Concrete Construction Co., Third and Elm St., Cincinnati, O.; Angle-Blackford Co., Amer. Exch. Bk. Bldg., Greensboro, N. C.; Smallman Construction Co., 1109 Fifth Ave., S., Foster & Creighton Co., First Natl. Bk. Bldg., both Birmingham, Ala.; W. P. Ross Co., Goldsboro, N. C.; E. G. Holladay Co., 151 Fourth Ave., N., Nashville, Tenn.; C. A. D. Bayley & Co., Inc., Red Rock Bldg., Atlanta, Ga.; Claude H. Lindsley, Archt., Lamar Life Bldg., Jackson, Miss.; Gardner & Howe, Struct. Engrs., Porter Bldg., Memphis. 3-28

Mo., Joplin—Republic Life Insurance Co., 210 McKinley Bldg., advises will not build now but plans office bldg. some time in future.

Mo., Kansas City—National Bank of North Kansas City, Nathan Rieger, Pres., erect 2-story bank and office building, Armour Rd. and Erie St.; Greenebaum, Hardy & Schumacher, Archts., Scarritt Bldg.

Mo., St. Louis—City College Development Corp., 322 N. Grand St., erect \$1,700,000, 23-story City College Building for City College of Law and Finance; \$96,000 sq. ft. office space; Jesse L. Bowling and Isadore Shank, Archts., Arcade Bldg. See Buildings Proposed—Schools.

N. C., Concord—Citizens Building & Loan Assn. erect 2-story bldg.; Indiana limestone and granite, fireproof vaults; owner on first floor, offices above; C. C. Hook, Archt., Commercial Bk. Bldg., Charlotte.

Churches

Fla., Clearwater—Peace Memorial Presbyterian Church, Alex W. Scott, Chmn., Bldg. Comm., has \$40,000 gift from Donald Roebeling for auditorium-gymnasium, to be third unit of structure; 47 x 110 ft., seat 750, stage, locker rooms, showers, etc.; Jonsberg & Wakeling, Archts., Center Natl. Bk. Bldg., Clearwater, and St. Petersburg, lately noted drawing plans for 2-story hollow tile and stucco Sunday school wing. 2-14

Ga., Brunswick—First Methodist Church, A. S. Glover, Chmn., Bldg. Comm., erect \$35,000 Sunday school; brick, 2 stories and basement, steam heat.

Miss., Jackson—Griffith Memorial Baptist Church, D. A. McCall, Pastor, 750 Winter St., probably select N. W. Overstreet, Miss. Fire Bldg., as architect for \$40,000 building; brick, 3 stories, about 60x138 ft., hardwood floors, conc. foundation, tile roof; furnishings, equipment, etc., \$5000.

Mo., Drexel—Baptist Church, Rev. W. A. Sharp, Pastor, has broken ground for \$30,000 building.

Mo., Harrisonville—Methodist Church erect \$26,000 bldg. Address The Pastor.

Mo., Higginsville—Methodist Church erect \$35,000 building; semi-Gothic type, 1 story, balcony and basement, brick, conc. and steel; Leroy Parrish, Archt., Jefferson City.

Mo., Kansas City—Grace and Holy Trinity P. E. Church, Rev. Robt. Nelson Spencer, Rector, rebuild church noted burned at \$50,000 loss.

Mo., St. Louis—Greek Orthodox Church of St. Nicholas, 3118 St. Louis Ave., plans \$200,000 bldg., Forest Park Blvd. near Kingshighway; rein. conc., brick and stone, 2 stories and basement.

N. C., Charlotte—First Presbyterian Church having plans drawn by C. C. Hook, Archt., Commercial Bk. Bldg., for chapel near Camp Greene Monument, Dowd Rd.; Gothic type, rough face, brick and limestone; probably cost about \$10,000. 12-20

N. C., Charlotte—St. Luke's Lutheran Church, C. A. Mees, Chmn., Bldg. Comm., erect temporary church and Sunday school, East Boulevard and Dilworth Road, East; architect not selected.

N. C., Boone—Baptist Church, W. D. Farthing, Chmn., Bldg. Comm., has low bid from R. F. Coffey for \$100,000 bldg.; brick, 3 stories, 152 x 83 ft.; plans donated. 10-25

Tenn., Nashville—Christ P. E. Church erect \$28,000 tower; Hart, Freeland & Roberts, Archts., Independent Bldg.

Museum; 1 story and basement; soon call for bids.

Tex., San Antonio—City, C. M. Chambers, Mayor, receives bids Apr. 15 for remodeling main library, Market St.; Italian type, limestone entrance, brick and conc., 2 and 3 stories, circulation room of 335,000-volume capacity; \$250,000; Herbert S. Green, Archt., Alamo Bk. Bldg.; W. E. Simpson & Co., Const. Engrs., National Bank of Commerce Bldg. 12-6

Tex., San Antonio—City, Phil Wright, Fire and Police Commr., receives bids Apr. 22 for Fire Station No. 6, 501 W. Russell Place; brick and conc., 2 stories; Henry T. Phelps, Archt., Hicks Bldg.; W. E. Simpson & Co., Engr., Natl. Bk. of Commerce Bldg.

Va., Portsmouth—City Council investigating advisability of consolidating downtown fire stations in new building.

Dwellings

Ark., Little Rock—Mrs. Lucille Holmes erect \$10,000 residence, 3805 S. Lookout St.

D. C., Washington—John P. Jackson erect \$25,000 residence, 2840 McGill Terrace; Jas. E. Cooper, Archt., 1417 K St., N. W.

D. C., Washington—Clyde C. Bowles has permit for 4 brick and tile dwellings, 1523-27 Ridge Place and 1727 Sixteenth St., S. E.; 2 stories; \$20,000.

D. C., Washington—Cooley Bros., Vermont Bldg., have permit for 5 dwellings, 2225-27 Thirty-eighth St., N. W.; brick, 2 stories; \$25,000.

D. C., Washington—H. R. Hownstein, 1311 H St., N. W., has permit for 8 dwellings, 701-15 Seventeenth St., S. E.; 2 stories; \$36,000.

Fla., Clearwater—Donald Roebling, Bernardsville, N. Y., and 1 Peach St., Clearwater, having plans drawn by Jonsberg & Wakeling, Archts., Coachman Bldg., Clearwater, for \$100,000 residence; brick, stone trim, 2 stories and basement, tile roof. 3-28

Fla., Clewiston—Mrs. G. H. House erect \$20,000 residence.

Fla., Coral Gables, Miami—Brown V. Ralston, Evanston, Ill., erect \$15,000 residence and garage, Castille Ave. and S. Greenway; rein. conc., conc. block, 2 stories, 72x39 ft., tile and wood floors, tile roof; John & Coulton Skinner, Archts., News Tower, Coral Gables.

Fla., Daytona Beach—Jas. Laughlin, 3rd, Zellwood, erect \$45,000 residence; frame, 2 stories, 100x35 ft.; L. Percival Hutton, Archt., 152 W. 72nd St., New York, and Laughlin Estates, Zellwood; bids in.

Fla., Miami—W. M. Griffin erect conc. block residence, Collins Ave.; 2 stories, tile and wood floors, tile roof; Russell Pancoast, Archt., 1139 Lincoln Rd., Miami Beach.

Fla., Miami—J. H. Lang erect conc. block residence, Ocean Beach; 2-stories, 64x44 ft., tile and wood floors, tile and comp. roof; John N. Bullen, Archt., Exchange Bldg.; bids in.

Fla., Miami—Paul R. Welch, Westfield, N. Y., plans residence, Di Lido Island; about \$50,000.

Fla., Miami—W. L. Payne, Columbus, Ga., plans winter residence, Rivo Alto Island; about \$50,000.

Fla., Miami—Albert Pick, 1200 W. 35th St., Chicago, Ill., erect dwelling, San Marino Island; about \$50,000.

Fla., Miami—G. L. Mitchell, New York, erect \$50,000 winter residence, San Marino Island; conc. block, 2 stories, 44x65 ft., tile and wood floors, tile roof, 15x50-ft. swimming pool; A. Fraser Rose, Archt., Miami Beach.

Fla., Miami Beach—John H. McCarthy, Cohasset, Mass., and Miami, plans residence.

Fla., Miami Beach—C. L. Devine, care E. L. Robertson, Archt., 76 N. E. 48th St., call for bids about 10 days for residence, Pine-tree Drive and 33rd St.; conc. block, 2 stories, 40x24 ft., tile and wood floors, tile roof.

Fla., Miami Beach—Dr. E. C. Leslie, Hilland Bldg., Pittsburgh, Pa., erect residence, 2384 Bay Rd.; Kiehnel & Elliott, Archts., Seybold Bldg., Miami.

Fla., Miami Beach—N. R. Boice, 1101 Palermo Ave., Coral Gables, erect \$10,000 residence and garage, 222 Thirty-sixth St.; conc. block, 2 stories; A. DeH. Zink, Archt., Seybold Bldg., Miami.

Fla., Miami Beach—W. H. Kinn, 74 Arden Pike, Detroit, Mich., erect hollow tile residence and garage; 2 stories, tile and wood floors, tile roof; Kiehnel & Elliott, Archts., Seybold Bldg., Miami.

Fla., Miami Beach—Robt. Kuhn, Detroit, Mich., erect \$25,000 conc. block residence and garage, Pinetree Drive near 52nd St.; 2 stories, tile and wood floors, tile roof, 4

baths; Robt. Taylor, Archt., 412-416 Espanola Way, Miami Beach.

Fla., Miami Beach—K. R. White, New York, erect hollow tile residence, Rivo Alto Island; 2 stories, tile and wood floors, tile roof, 4 baths; Kiehnel & Elliott, Archts., Seybold Bldg., Miami. See Want Section—Building Material and Equipment.

Fla., Palm Beach—Kenneth C. Smith erect residence; Marion Sims Wyeth, Archts.

Ga., Rockmart—Goodyear Tire & Rubber Co., Akron, O., erect 400 dwellings, connection with constr. of fabric plant. See Textile Mills.

Fla., St. Petersburg—Dexter E. Kenyon, broker, 819 Sheridan St., Chicago, Ill., purchased homesite, Don Ce-Sar Place.

Fla., St. Petersburg—Geo. W. Halstead, Real Estate Broker, 100 Broadway, New York, purchased homesite, Don Ce-Sar Place.

Ga., Atlanta—Dr. Henry W. Minor, Atlanta Natl. Bank Bldg., probably soon let contract for \$35,000 residence, Dunwoody Road; brick, stone trim, 2 stories and basement, hardwood and tile floors, slate or tile roof.

Ga., Atlanta—A. N. Canton, 2840 Peachtree St., N. E., erect \$25,000 residence, Rivers Rd., N. E.; hollow tile and brick, 2 stories and basement, conc. footings, hardwood and tile floors, slate or tile roof; owner builds.

Ga., Atlanta—W. D. Ellis, Jr., 598 Wells St., S. W., have plans by Cooper & Cooper, Archts., Bona Allen Bldg., for \$15,000 Colonial residence, Chatham Rd., N. E., ready about Apr. 15; 2 stories and basement, tile and hardwood floors, shingle exterior, slate roof. 1-24

Ga., Columbus—A. O. Blackmar has low bid from Williams Lumber Co., Inc., 13th St., Columbus, for residence; Jas. T. Mitchell, Archt., 140 Peachtree St., N. E., Atlanta. 2-28

Ga., Savannah—Leon Rosenhoff erect duplex, Victory Drive; red brick, gray stone trim, 8 rooms.

Ga., Shannon — Southern Brighton Mills erect 125 operatives' cottages after plans by J. E. Sirmine & Co., Engrs., Greenville, S. C.; frame and brick, comp. roofs. 3-21

Ky., Louisville—H. C. Griswold, Weis-Garl Apts., erect \$25,000 brick-and-tile dwelling, 2425 Cherokee Pkway.

La., Alexandria—Mrs. Velma B. McSweeney erect \$10,000 residence, Marye and 22nd Sts.; brick veneer.

La., New Orleans—L. C. Winborne, Paul St. near Derbigny St., erect double residence; 24x60 ft., asbestos roof.

La., New Orleans—J. K. Ware, 2104 Broadway, has plans about completed by Lockett & Chachere, Archts., Balter Bldg., for brick veneer residence, Versailles Blvd. near Fontainebleau Drive; 2 stories and basement, tile baths, hardwood floors, slate roof, warm air heat. 3-7

La., New Orleans—Miss Marie Margot, 3200 Carondelet St., erect double dwelling.

Md., Baltimore—C. W. Duvall, 505 E. 41st St., erect 6 dwellings, 600 block Nottingham Rd.; 2 stories; \$18,000.

Md., Baltimore—E. B. Whitman, 18 E. Lexington St., erect \$50,000 residence, Churchwarden's Rd. near Charles St., Homeland; stone, 2½ stories; W. H. Emory, Archt., 20 E. Lexington St.

Md., Baltimore—Mary P. Platt, 700 Park Ave., erect \$23,000 residence, 201 Goodale Rd., Homeland; 3 stories.

Mo., Clayton, St. Louis—A. Blair Riddington, Archt., Paul Brown Bldg., St. Louis, completed plans for \$25,000 dwelling, Wydown Blvd. near Audubon Blvd.; brick, 2 stories.

Mo., Kansas City—Neil Barron, care Neil Barron Coal & Coke Co., purchased homesite, 453 W. 68th Terrace, Romanelli Gardens.

Mo., St. Louis—Archibutee Lee erect residence, Ladue Rd. near Warsaw Rd.; 3 baths; Gale E. Henderson, Archt., Arcade Bldg.

N. C., Chadbourn—Dr. Graham Barefoot erect brick veneer residence; 1 story, 2 baths, pine, oak and tile floors, asbestos shingle roof; Ye Planry, Inc., Archt., 1713½ Live Oak St., Dallas, Tex.; plans completed.

N. C., Kinston—C. R. Crisp erect brick veneer residence; 1-story, pine, oak and tile floors, 2 baths; Ye Planry, Inc., Archt., 1713½ Live Oak St., Dallas, Tex.; plans completed.

N. C., Winston-Salem—Will T. Eaton, 622 W. Sixth St., may erect country residence, Buena Vista Rd.

N. C., Winston-Salem—Following consider erecting residences during Summer: E. T. Nance, 649 W. Second St., on Reynolda Rd.; T. H. Tise, Realty Bldg., on Buena Vista Rd.; R. M. McArthur on Avalon Rd. and Jas. R. McClamrock on Roslyn Rd.

N. C., Winston-Salem—S. S. Bohannon erect 4 dwellings, Grafton and Brent Sts.; \$12,000.

Okla., Bartlesville—H. E. Hulen, Pres., Union National Bank, plans \$15,000 to \$20,000 residence, Johnstone Ave.

Okla., Oklahoma City—Norman Taylor erect 2 brick dwellings, 4314-19 Grange Ave.; \$10,000.

Okla., Tulsa—Dr. Jos. Trimble start work in July on residence, Country Club Heights Addition; Lost City and Garnett broken rubble stone, 30x38 ft., 2 baths, Frigidaire; J. E. Stegall, Archt.; Don Fellows, Landscape Archt., care Owner.

S. C., Greenville—C. C. Jones, Jones Bldg., erect \$10,000 residence, Cleveland Park; frame, 2 stories, 24 x 50 ft.

S. C., Greenville—H. E. Littlejohn, 1 Smyth-Managhan St., erect \$10,000 residence, 114 W. Earle St.; brick veneer, 2 stories, 39 x 53 ft.

S. C., Greenville—Geo. P. Roberson erect \$15,000 residence after plans by Wm. R. Ward, Archt.; bids early in Apr.; brick veneer, 2 stories, hardwood floors, comp. roof. Address Archt. 3-28

S. C., Rock Hill—Dr. P. B. Hilton erect \$10,500 residence, Oakland Ave.

Tenn., Memphis—B. E. Berry, Bldr., Fidelity Bank Bldg., erect \$14,000 English type dwelling, East Drive, Hein Park; \$15,000 bungalow, Chickasaw Gardens; \$6,000 bungalow, N. Garland St. near Henry Ave.; plans additional dwellings.

Tenn., Nashville—T. J. Halle, Jr., 1419 erect 3 brick veneer dwellings, Lauderdale Drive; brick veneer, 7 rooms; \$30,000.

Tex., Beaumont—Dr. H. D. Harlan soon call for bids for \$20,000 residence, McKee Pl.; English type, brick and hollow tile; Livesay & Wiedemann, Archts., San Jacinto Life Bldg.

Tex., Coleman—L. Zweig plans 36 additional dwellings, Zweig Addition off Santa Ana Highway.

Tex., El Paso—Lytton B. Taylor, First Natl. Bk. Bldg., erect \$10,000 residence, 1008 Cincinnati St.; 2 stories, 10 rooms.

Tex., Fort Worth—King Properties Co. erect \$14,000 dwelling, 1511 Washington Terrace.

Tex., Henderson—P. J. McNee erect English type residence; brick veneer, 2 stories; Curtis & Thomas, Archts., Post-Dispatch Bldg., Houston.

Tex., Houston—Fred. J. Rousseaux, 1308 Hadley St., erect brick veneer residence, 1816 Arbor St.; 2 stories; Curtis & Thomas, Archts., Post-Dispatch Bldg.

Tex., Houston—L. Friedman erect \$14,000 residence, 1518 Blodgett Ave.; brick veneer, 2 stories.

Tex., Houston—C. H. Sancliff erect \$16,000 residence, 2531 Bliz Ave., Riverside Terrace; brick veneer, 2 stories, 11 rooms.

Tex., Houston—C. H. Clarke erect 3 duplexes, Saulnier St., Alden Place; 2 stories, 10 rooms; \$24,000.

Tex., Houston—B. F. Winborn, Real Est., Post-Dispatch Bldg., erect 19 duplexes, W. Polk and Saulnier Sts., Alden Place; brick veneer, 2 stories; about \$200,000.

Tex., Houston—H. Miller erect \$10,000 residence, 2641 Prospect St.; brick veneer, 2 stories.

Tex., Houston—J. W. Landau erect \$10,000 residence, 2402 Rosedale St.; brick veneer, 8 rooms.

Tex., Laredo—Yale Hicks erect brick residence; 2 stories, 7 rooms; Atlee B. & Robt. M. Ayres, Archts., Bedell Bldg., San Antonio; plans about ready.

Tex., Mission—N. Doffing erect \$15,000 common brick and hollow tile residence; 2 stories, 3 baths, hardwood and tile floors, shingle roof, conc. foundation; Decker & Tanner, Archts.

Tex., Pasadena—Geo. D. Wilson, 1906 Wheeler St., Houston, erect number bldgs.; L. L. Strey, Agent.

Tex., San Antonio—H. J. Shearer, 505 S. St. Marys St., probably soon start work on \$35,000 to \$40,000 residence, Betty Lou Drive, Dream Hill Estates.

Tex., San Antonio—Dr. W. R. Sugg, Medical Arts Bldg., erect Spanish type residence and garage, Terrell Hills; frame and stucco, 2 stories, 2 baths, tile roof; Robt. Kelly, Archt., Milam Bldg.; plans ready about Apr. 19.

Tex., San Antonio—Mrs. Collins C. Clemens, Encino Ave., has completed plans for \$30,000 residence, Alamo Heights; rein. conc. foundation, face brick, hollow tile, half timber, 2 stories, 22x78 ft., slate, wood, tile and cement floors, shingle tile roof; Marvin

Eickenroht & Bartlett Cocke, Archts., Maverick Bldg.; Beretta-Stiles Co., Inc., Engrs., Natl. Bank of Commerce Bldg. 3-28

Tex., San Antonio—H. J. Shearer erect 2-story residence, Dream Hill Estates; 3 baths; Albaugh & Steinbomer, Archts., both Real Est. Bldg.

Va., Danville—Forest Hills Development Corp. erect 6 dwellings, Forest Hills; \$70,000; Heard & Chesterman, Archts., both Masonic Bldg.

Va., Richmond—Housing Investment Corp. of Richmond erect 12 dwellings, 3900 blocks Park Ave. and W. Franklin St.; 2 stories; \$85,500.

Va.-Tenn., Bristol—Jesse M. Rowell erect brick veneer dwelling, Taylor St. and Florida Ave.; 2 stories.

Va.-Tenn., Bristol—Barker & Lyons erect 1-story brick veneer dwelling, Anderson St.

Va., Winchester—W. G. Hardy, Cashr., Shenandoah Valley National Bank, erect residence, Stewart and Gerard Sts.

Government and State

Ala., Anniston—Following contractors estimating on 3 units of Infantry Battalion Barracks, bids Apr. 13 by Constructing quartermaster, Camp McClellan; Algernon Blair, 11 S. Lawrence St.; A. C. Sanford, Shepherd Bldg., both Montgomery, Ala.; Ogletree Construction Co., 11th St., Anniston; A. J. Honeycutt Co., 2408 15th Ave., N.; Smallman Construction Co., 1109 Fifth Ave., S., both Birmingham; H. B. Nelson Co., Augusta, Ga.; W. P. Thurston Co., Inc., Richmond Tr. Bldg., Richmond, Va.; W. P. Rose Co., Goldsboro, N. C.; Grahn Construction Co., Red Rock Bldg., Atlanta, Ga.; Rogers & Leventhal, Inc., 622 E. 11th St., Chattanooga, Tenn.; James C. Miller Co., Campbellsville, Ky.; Simons-Mayrant Co., Peoples Bldg., Charleston, S. C.; John M. Olsen, Gadsden, Ala.; J. F. Holley Co., Ensley, Ala. 3-21

Ala., Montgomery—War Dept., Air Corps, Major Frank Kennedy, member, Div. of Bldgs. and Grounds, Washington, D. C., establish tactical school; first unit \$300,000; quarters for officers and enlisted personnel, hangars, landing field equipment, etc.; work probably start within 90 days.

Ark., Conway—Arkansas National Board, Joe S. Harris, Adj.-Gen., Little Rock, plans \$25,000 armory provided site is donated; plans would be drawn by Durward F. Kyle, Archt., Citizens Bk. Bldg., Pine Bluff.

Ark., Little Rock—Treasury Dept., S. Lowman, Asst. Sec., Washington, receives bids April 16 for sale or donation of lot about 330 x 250 ft., for Federal bldg.; information from Postmaster.

D. C., Washington—Office Public Buildings and Public Parks of National Capitol has \$50,000 appropriation for 1-story brick office building, 1600 Pennsylvania Ave., N. W.

D. C., Washington—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., has low bid at \$13,567,000 from Consolidated Engineering Co., 20 E. Franklin St., Baltimore, Md., for building for Department of Commerce; low bid at \$544,967 from Otis Elevator Co., 810 18th St., N. W., Washington, for elevators and dumb waiters; low bid at \$60,230 from Rice Studio, New York, for plaster models; York & Sawyer, Archts., 100 E. 42nd St., New York. 3-14

Ky., Lancaster—Following contractors estimating on remodeling and enlarging post office, bids Apr. 16 by Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C.; Hiram Lloyd Building & Construction Co., Syndicate Tr. Bldg.; Wm. MacDonald Construction Co.; A. M. Lundberg, Rwy. Exch. Bldg.; Geo. Griffiths Construction Co., Arcade Bldg., all St. Louis, Mo.; A. C. Sanford, Shepherd Bldg., Montgomery, Ala.; Fayette Construction Co., Lexington, Ky.; E. E. Garber & Co., 203 W. Fourth St., Bethlehem, Pa.; James C. Miller Co., Campbellsville, Pa.; Kellogg & Anderson, Des Moines, Iowa; J. P. Foley & Sons, Inc., Little Bldg., Boston, Mass.; Charles Weitz Sons, 713 Mulberry St., Des Moines, Iowa; Devault & Deitrich, Inc., Massillon Rd., Canton, O.; King Lumber Co., Charlottesville, Va.; Jones Bros. & Co., Wilson, N. C. 3-28

Louisiana—City of Shreveport, L. E. Thomas, Mayor, probably vote May 15 on \$1,500,000 bonds to purchase site for attack wing of U. S. Army Air Corps in Bossier Parish; Major Frank Kennedy, member, Div. of Bldgs. and Grounds, Washington, D. C.

Tex., Dallas—Following contractors estimating on constr. (except elevators) of post office and courthouse, bids Apr. 30 by Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C.; Hiram Lloyd

Building & Construction Co., Synd. Tr. Bldg., St. Louis, Mo.; Devault & Deitrich, Massillon Rd., Canton, O.; Fayette Construction Co., 500 W. Short St., Lexington, Ky.; A. C. Sanford, Algernon Blair, both Montgomery, Ala.; J. H. Wiese Co., 1415 W. O. W. Bldg., Omaha, Neb.; Yeager & Sons, Danville, Ill.; Robt. E. McKee, 1916 Texas St., El Paso, Tex.; Bellows-MacLay Construction Co., Constr. Indus. Bldg., Dallas, Tex. 3-28

Tex., Mexia—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., receives bids April 16 for site for \$100,000 Federal building.

W. Va., Charleston—Capitol Comsn., Wm. A. MacCorkle, member, has been authorized by Legislature to erect main unit of State Capitol; Cass Gilbert, Archt., 244 Madison Ave., New York.

Hospitals, Sanitariums, Etc.

D. C., Washington—Gray Ladies of Walter Reed raising \$100,000 for chapel, Walter Reed General Hospital, Army Medical Center; \$65,000 available.

Ga., Alto—Grand Lodge of Georgia, A. F. & M. Dr. E. C. Thrash, Chmn., Bldg. Comm., 157 Forrest Ave., N. E., Atlanta, receives bids Apr. 8 for ward, State Tuberculosis Sanatorium; \$100,000, rein. conc., brick, 2 stories, comp. roof, steam heat; Levy & Clark, Archts., Blum Bldg., Savannah, Ga.; Scroggs & Ewing, Asso. Archts., S. F. C. Bldg., Augusta; following contractors estimating: Converse-Myers Co., Inc., Bona Allen Bldg.; Grahn Construction Co.; Flagler Co., both Red Rock Bldg.; Arthur Pew, Jr., 1020 Columbia Ave.; Wagar & Co., Norris Bldg.; Palmer Co., Thrower Bldg.; Arthur R. Myers Co., all Atlanta, Ga.; H. B. Nelson Construction Co.; Claussen-Lawrence Co., 1394 Gwinnett St.; Frank Wheatley Co., 510 Crawford Ave., all Augusta, Ga.; Potter & Shackelford, Inc., Allen Bldg., Greenville, S. C. 1-31

Ga., Augusta—United States Veterans Bureau, L. H. Tripp, Ch., Constr. Div., Arlington Bldg., Washington, D. C., plans clinic and 2 ward bldgs., U. S. Veterans Hospital; brick, stone trim, rein. conc. frame and floor slab, steam heat; \$400,000.

Ga., Waycross—Ware County votes Apr. 30 on \$250,000 hospital bonds. Address Bld. of Comms. 1-13

La., New Orleans—Charity Hospital has low bid at \$35,085 from O. M. Gwin Construction Co., Union Indemnity Bldg., for boiler house; piping bld., Cabrac-Gelpi Plumbing & Heating Co., 636 Carondelet St., at \$53,435; stack bid at \$4990 from Walter Castaneda, Maritime Bldg., all New Orleans; boiler bid at \$35,500 from Robinson Bros., Pine Bluff, Ark.; Favrot & Livaudais, Ltd., Archts., Hibernia Bldg. 2-21

Okla., Tulsa—Oklahoma Hospital Assn. having preliminary plans drawn by Rush, Endacott & Goff, Archts., Wright Bldg., for 200-bed hospital adjoining present structure; set-back type. 2-7

Mo., Memphis—Scotland County Court, L. C. Moore, Clk., erect \$25,000 infirmary; brick, 2 stories.

Texas—State Legislature, Dan Moody, Gov., voted appropriations for 2 psychopathic and 1 cancer hospital.

Hotels and Apartments

Ala., Gadsden—Dr. C. L. Gulce advises will not erect apartment at this time. 3-23

Ala., Montevallo—E. H. Willis has low bid at about \$55,000 from Lewis-Anderson Co., Birmingham, for 2-story and basement, brick 20-apartment; comp. roof, hardwood and tile floors; Turner & Slater, Archts., Martin Bldg., Birmingham.

Ark., Freeman Springs—Ozark Hotel Co., W. D. Eakes, Sec.-Treas., Dover, plans \$50,000 tourist hotel.

D. C., Washington—D. D. Ball erect \$17,500, 2-story, brick and tile apartment, 733 Sixth St., S. E.

D. C., Washington—L. E. Breuninger & Sons, Colorado Bldg., have permit for \$12,000, 2-story, brick apartment, 1344 Iris St., N. W.

Fla., Miami—Vanta Holding Co., 1176 S. W. 20th Ave., remodel store into 9-apartment; H. J. Moloney, Archt., Ingraham Bldg.; bids in.

Fla., Miami Beach—S. O. Corbett, 1308 Drexel Ave., erect apartment; D. Anderson Dickey, Archt., Hollywood.

Ky., Louisville—Anna Setin has permit for brick apartment and 2 frame garages, 2304-10 Woodbourne Ave.; \$40,000.

Ky., Louisville—M. P. Colter, 2571 Lakeside Drive, erect \$20,000 brick veneer apartment, 1378 S. Floyd St.

Ky., Louisville—Stanley E. Sloss, 426 S. Fifth St., has permit for \$10,000 brick apartment, 547 S. First St.

Ky., Russell—L. D. Maggard, Ashland, remodel Russell Playhouse for hotel; fireproof.

Md., Baltimore—Harry E. West, Inc., Munsey Bldg., erect apartment, Edgewood St. and North Ave.

Mo., Harrisonville—Edward F. Kennedy having plans prepared for \$30,000, 2-story, rein. conc., 5-apartment and laundry; Harry F. Miller, Archt., 4130 Park Ave., Kansas City.

Mo., St. Louis—Melbourne Hotel Co. erect addition to Melbourne Hotel, Grand and Lindwell Blvd.; ballroom with 500-guest capacity.

N. C., Asheville—J. Reed Lane, Davenport, Iowa, purchased Grove Park Inn and plans 100-room annex.

N. C., Winston-Salem—F. W. Haymore, 1416 E. 25th St., has permit for \$10,000, 2-story, frame, 4-apartment, 25th St., between Claremont and Dunleith Aves.

Okla., Clinton—Calmes & Chandler have low bid from Cowen Construction Co., Chickasha, for \$200,000, 7-story, 75 x 140 ft., brick, stone and rein. conc., 100-room hotel; Hawk & Parr, Archts., First Natl. Bk., Oklahoma City. 9-20

Okla., Claremore—Walter E. Krummel and Louis Abraham, Bristow, and Morton R. Harrison, Claremore, erect 6-story hotel; Hawk & Parr, Archts., First Natl. Bldg., Oklahoma City. 3-28

Okla., Oklahoma City—Charles Stickley erect 2-story brick apartment, 400 block Stiles Ave.

Okla., Oklahoma City—J. E. Snell has permit for brick apartment, 724 W. 25th St. S. C., Florence—W. R. Barringer, reported, plans \$500,000 tourist hotel; 12 stories, fireproof, 100 to 125 rooms.

Tenn., Clarksville—Drs. John W. and E. B. Ross erect 2-story brick office and apartment on Franklin St.

Tenn., Memphis—G. A. Donelson, 1232 Lamar Bldg., plans two 4-apartments, 1237 and 1341 Harbert Ave.

Tenn., Memphis—Dave Dermon Realty Co., Dermon Bldg., representing Tennessee Realty Co., applied for permit for 20-apartment, 417 N. Watkins St.

Tex., Dallas—Blue Bonnet Hotels, Floyd Singleton, Pres., San Antonio, reported, considering sites for hotel; 16 stories, 682 rooms.

Tex., Dallas—Crabtree & Wilson have permit for \$40,000, 80-room brick veneer apartment, 201-7 Edgemoor St.

Tex., El Paso—Harry L. Hussman, 4209 Pershing Dr., permit for \$32,000 apartment, 3319-21 Pershing drive.

Tex., Falfurrias—Galloway Bros. plan 2-story, 40-room, brick and hollow tile hotel; telephone, hot and cold water in all rooms, steam heat.

Tex., Houston—S. H. Dunlap, 2109 Austin St., has permit for \$35,000 2-story, 8-apartment, 1901-05 Isabella St.

Tex., Houston—G. P. Glangis has permit for \$10,000 8-apartment, 1010 Wagner St.

Tex., Houston—Scott Shambaugh, 1401 Dowling St., has permit for \$10,000, 2-story, brick veneer, 4-apartment, 1248 W. Bell St.

Tex., Houston—B. F. Winborn, Post-Dispatch Bldg., plans 19 brick veneer apartments during next six months, beginning April 1, to cost \$200,000; 16 of apartments on Saulnier St. and 3 on W. Polk St.

Tex., Midland—Clarence Scharbauer receives bids April 15 for 6-story basement, 100 x 140 ft., brick, steel and rein. conc., fireproof 100-room hotel annex; comp. roof, cement and tile floors, garage on first floor; plans from Wyatt C. Herrick, Archt., 1005 First Natl. Bk. Bldg., Fort Worth. 3-7

Tex., Rhine—Bd. of Education having plans prepared by C. H. Leinbach, Central Bk. Bldg., Dallas, for \$30,000, 1-story, brick, steel, 8-classroom and auditorium school; election soon on bonds.

Tex., San Angelo—Mrs. J. E. Kennedy has permit for \$12,000 apartment, 215 E. Beauregard Ave.

Tex., San Antonio—Emmy Dittmar Improvement Co., J. A. Dittmar, 509 Howard St., has low bid at \$312,000 from San Antonio Construction Co., Builders Exch. Bldg., for superstructure of Dittmar Apartments, Howard St., between Laurel and Cypress Sts.; elevator and plumbing bids April 4; 10 stories, brick, terra cotta, rein. conc. frame; Herff & Jones, Asso. Archts., 203 San Antonio Loan & Trust Bldg.; M. L. Diver, Struc. Engr., Calcasieu Bldg. 3-14

Va., Harrisonburg—O. M. Masters, Natl. Bk. Bldg., erect 6-story, 100-room, fireproof hotel, Main and Franklin Sts.; first story, limestone or imitation stone, brick above; Chas. M. Robinson, Archt., Times-Dispatch Bldg., Richmond.

Va., Lynchburg—Virginian Hotel, A. F. and R. E. Young, Prop., plans 100-room addition.

Miscellaneous

Ark., Otwell—Dr. P. W. Lutterloch, Jonesboro, Chmn. Comm., promoting clubhouse and 320-acre artificial lake on property of T. L. Brown, near Otwell.

D. C., Washington—W. M. Jarvis, 2222 Georgia Ave., N. W., erect \$50,000, 2-story brick funeral parlor and office, Trumbull St. and Georgia Ave., N. W.; J. M. Gardner, Archt., 1851 Vernon St.

Miss., Vicksburg—Vicksburg Community Golf Club, George Sudduch, Chmn. Bldg. Comm., 608 Cramford St., soon call for bids for \$12,000, 1-story, 65x73 ft., frame clubhouse; hardwood and pine floors, asbestos roof, hot air heat; W. A. Stanton, Archt., First Natl. Bk. Bldg. 3-21

Mo., Columbia—Farm House Fraternity, H. H. Krusekopf, Pres., 414 Hitt St., erect \$35,000, 3-story, 35x87 ft., brick and tile fraternity house; oak floors, asphalt shingle roof; Bill & Traber, Archts., 1008 Broadway; bids in. See Want Section—Building Material and Equipment. 12-27

Mo., Kansas City—Florence Home for Colored Girls, Mrs. Elizabeth Bruce, Pres., 2446 Michigan St., having plans prepared by Walter Bescke, Huntzinger Bldg., for \$25,000 home, 23d and Campbell Sts.

Mo., Kansas City—Victor de Foe, Archt., Huntzinger Bldg., preparing plans for \$20,000, 1 and 2-story, brick and stucco club building.

Okla., Miami—Rockdale Country Club, N. F. Wright, Pres., soon ready for bids for \$25,000, 2-story, brick clubhouse; H. J. Russell, Archt., 2-28

Okla., Oklahoma City—State Fair Assn., Ralph T. Hemphill, Sec., rebuild agricultural building destroyed by fire at loss \$10,000.

Tex., Bryan—Woman's Club, Mrs. Tyler Haswell, Pres., having plans prepared by Giesecke & Harris, 205-7 W. 7th Ave., Austin, and Second Natl. Bank Bldg., Houston, for clubhouse, E. 27th St. and Washington Ave.

Tex., Dallas—City Comm. approved proposal of Alvin Owsley, Charles S. Mitchell and Harry J. Lyons to erect \$1,500,000 municipal market on 10-acre tract on Haskell Ave., near Oak Grove golf course; city to lease part of building which will contain 500 stalls; also plan another market in Oak Cliff later.

Railway Stations, Sheds, Etc.

Md., Baltimore—Baltimore & Ohio R. R. H. A. Lane, Ch. Engr., considering plan of city of Baltimore for Howard street viaduct, which involves improvements to Mt. Royal Station.

Okla., Tulsa—City, Tulsa Terminal Co., Chicago, Rock Island & Pacific Rwy. Co. and St. Louis, San Francis Rwy. Co. signed tentative contract for erection Union Station; \$3,650,000; \$1,250,000 bond issue already voted by city for purpose will be offered for sale. 8-2-28

Schools

Ala., Auburn—Alabama Polytechnic Institute, Dr. Bradford Knapp, Pres., receives bids April 18 for \$250,000, 3-story and basement, steel frame, brick, stone trim chemistry building; gypsum block, slate roof, rein. conc. floor construction, mastic floors, hand power elevator; plans from Warren, Knight & Davis, Archts., Protective Life Bldg., Birmingham. 2-28

Ala., Evergreen—State Bd. of Education, Dr. R. E. Tidwell, Supt., Montgomery, rejected bids for high school; call for new bids. 3-21

Ark., Jonesboro—Bd. of Trustees, Agricultural and Mechanical College, erect refrigeration plant; 45x75 ft.; contain room for creamery, dairy and bacteriological laboratory, refrigeration room for dairy products, one for meat, one for vegetables and fruits, another for ice storage; install refrigeration machine.

Ala., Tusculumbia—City, I. L. Hay, Clk., voted \$40,000 bonds to be supplemented by \$30,000 already available for \$70,000 grammar school to replace burned structure. 3-21

Ark., Osceola—Osceola Special School Dist., C. E. Sullenger, Sec., receives bids April 6 for 2-story school; separate bids for general contract, wiring, heating.

Ark., Jonesboro—Herman School Dist. No. 19, M. A. Banter, Sec., care Craighead County Supt., received bids Apr. 6 for school; separate bids for material, labor, and on combined bid.

Fla., Belle Glade—State Bd. of Control, P. K. Yonge, Chmn., Carling Hotel, Jacksonville, expend \$50,000 to rehabilitate State Experimental Station, State University School of Agriculture; Dean Wilmen Newell, Head of Agricultural Dept., University of Florida, Gainesville, to supervise work. 3-23

Fla., Chipley—Washington County Bd. of Public Instruction, J. E. Russ, Supt., having plans prepared by Hirsch & Jones, 307 Vanidver Bldg., Montgomery, Ala., for \$55,000, 1-story, brick, 12-classroom school.

Ga., Athens—University of Georgia, Harold Hirsch, Chmn., Bldg. Comm., Hurt Bldg., Atlanta, erect \$75,000 Law Bldg.

Ga., Decatur—Agnes Scott College, Dr. J. R. McCain, Pres., receives bids April 8 at office Robert & Co., Inc., Archts., Bona Allen Bldg., Atlanta, for \$75,000, 2-story and basement, brick and struct. steel boiler plant and laundry; comp. roof. 3-28

Ga., Jefferson—Jefferson School Dist., Trustees, M. M. Bryan, Chmn., receives bids April 23 for 1-story and basement, brick, stone trim grammar school; 8 classrooms, comp. roof, conc. and wood floors; plans from Lockwood & Poundstone, Archts., Edw. F. Billie, Asso. Archt., both Forsyth Bldg., Atlanta. 3-21

Ga., Lakemont—Bd. of Education ready for bids about April 20 for 1-story and basement, brick, stone trim, 12-classroom and auditorium school; comp. roof, hardwood and tile floors, steam heat; Wm. J. J. Chase, Archt., 140 Peachtree St., Atlanta.

Ga., Rome—Model School Dist., Floyd County, E. F. Padgett, Chmn. of Bd., receives bids April 20 for \$60,000 brick school; comp. roof, wood floors; plans from Lockwood & Poundstone, Archts.; Edw. F. Billie, Asso. Archt., both Forsyth Bldg., Atlanta. 3-14

La., Bogalusa—City votes May 21 on \$250,000 bonds including \$100,000 for additions to schools; E. R. Cassidy, Mayor. 3-28

Ky., Lexington—University of Kentucky, Dr. Frank L. McVey, Pres., having plans prepared by Warner-McCormack & Mitchell, Bulkeley Bldg., Cleveland, Ohio, for 4-story and basement, 160x106 ft., 1,000,000-volume library; plans to start work about May 1; convert old library into museum.

Ky., Murray—Murray State Teachers' College Bd. of Regents having plans prepared by G. Tandy Smith, Paducah, for brick library building.

La., Monroe—City voted \$600,000 school bonds; erect high and several grade schools; E. L. Neville, Supt. of Schools. 1-31

La., New Orleans—Orleans Parish School Bd., City Hall Bldg., erect 3-story, brick, frame and stucco McDonough No. 19 School; 15 classrooms, slate roof; work under supervision of Jacob Schlosser, Supt. of Maintenance of School Bd.; piling bids in; E. A. Christy, Supvg. Archt.

La., Opelousas—Following contractors estimating on \$15,000, 1-story frame auditorium for St. Landry Parish School Bd., bids April 10: R. L. Roland, both Alexandria; J. B. Tudor of Tudor & Gossen, Rayne; Herman J. Duncan, Archt., 120 Murray St., Alexandria. 3-21

La., Shreveport—Following contractors estimating on \$100,000, 1-story, rein. conc., brick, stucco, 12-classroom Broadmoor School, bids Apr. 10: Werner Co., Inc.; K. C. Wilson, Agurs; Ashton Glassell, 501 Texas St.; Tom Green, Ward Bldg.; J. M. Brown, 210 Milam St.; H. Cleveland, Giddens-Lane Bldg.; H. & B. Construction Co., Ricou-Brewster Bldg.; Welch & McLain, all Shreveport; Christy-Dolph Construction Co., Construction Industries Bldg., Dallas, Tex.; J. H. Reddick, Fort Smith, Ark.; Edw. F. Neild, Archt., City Bk. Bldg. 3-7

Md., Annapolis Junction—District Comms., P. L. Dougherty, Engr. Dept., Room 427 District Bldg., Washington, D. C., erect \$100,000 dormitory building; appropriation granted.

Md., Elkridge—Howard County School Bd., W. C. Phillips, Sec., Ellicott City, erect \$50,000, 2-story, brick, 7-classroom high school; Clyde N. & Nelson Friz, Lexington Bldg., Baltimore, probable architects.

Md., Woodstock—Woodstock College, Father F. McCormick, Pres., having plans prepared by Hugh I. Kavanaugh, 913 N. Calvert St., Baltimore, for \$200,000, 1-story, granite library building. 2-28

Miss., Centreville—Bd. of School Trustees,

Richard J. Field, Sec., receives bids April 18 for \$40,000, 1-story, rein. conc., brick, stone trim elementary school; built-up comp. roof, wood floors; plans from J. M. Spain, Archt., Millsaps Bldg., Jackson. 2-14

Miss., Clarksdale—School Trustees, H. B. Heidelberg, Supt., having plans prepared by P. J. Krouse, M. & W. Bldg., Meridian, and ready for bids in about 3 weeks for 3-story, brick, stone trim, fireproof junior high school, two 1-story, 32x50-ft., brick units and central heating plant at Elizabeth Clark School and improvements to high school; \$250,000. 3-7

Miss., Greenville—School Bd., Henry W. Starling, Pres., having plans prepared by N. W. Overstreet, Miss. Fire Insurance Bldg., Jackson, for \$150,000, 2½-story, brick and stone trim Jr. High School on Main St., adjoining Greenville High School; 10 classrooms, auditorium to seat 900, gymnasium, cafeteria, study hall and home science department.

Miss., Holly Springs—School Trustees erect \$35,000 brick school to replace burned structure; 8 classrooms and gymnasium. 3-28

Miss., Jackson—Bd. of Education, Ed. F. Bailey, Supt., receives bids April 16 for \$35,000, 1-story brick veneer school and \$23,000 improvements to Smith-Robertson School; separate bids for plumbing, heating and electric wiring; plans from Hull & Malvaney, Archts., Merchants Bk. Bldg. 2-21

Miss., Jackson—Rankin County School Bd. having plans prepared by N. W. Overstreet, Mississippi Fire Insurance Bldg., for \$30,000, rein. conc., brick and stone trim East Side School near Jackson; built-up comp. roof.

Mo., Independence—Bd. of Education erect \$150,000 William Chrisman High School annex; James Oliver Hogg, Archt.; city voted April 2 on \$180,000 school bonds. 3-28

Mo., Downing—Bd. of Education erect auditorium addition to high school; seat 500 people; \$27,000 bonds voted.

Mo., Maryville—Bd. of Education, L. E. Zeigler, Supt., erect 2 ward schools, repair 3 ward schools and high school; \$185,000 bonds voted. 3-21

Mo., Parkville—Park College, Dr. Frederick W. Hawley, Pres., having plans prepared by Greenbaum, Hardy & Schumacher, Scarritt Bldg., Kansas City, for \$150,000 brick and stone chapel. 2-14

Mo., St. Louis—City College Development Corp., 322 N. Grand St., erect \$1,700,000, 23-story, 70x104 ft., City College Building, 14th and Olive Sts., for City College of Law and Finance, Prof. A. Ebersole, Pres.; 96,000 sq. ft. office space, 5 shops on first floor, college to occupy 3 floors; Bedford stone, steel frame protected by conc., lobby and corridors to have marble wainscoting and sound-deadening floors, 4 elevators; Jesse L. Bowling and Isadore Shank, Archts., Arcade Bldg. 6-28-29

N. C., Bryson City—Swain County School Bd., N. E. Wright, Supt., having plans prepared by Benton & Benton, Wilson, for 2-story school.

N. C., Greenville—Bd. of Education, J. H. Rose, Supt., erect \$50,000, 1-story, brick school; 8 rooms and assembly hall; G. R. Berryman, Archt., Odd Fellows Bldg., Raleigh. 3-21

Okla., Muskogee—Bd. of Education erect 4-room ward school, Emporia St., 6-room addition to Manual Training Bldg., remodel ward schools; \$30,000.

Okla., Neosho—A. O. Clark, Archt., Rogers, Ark., preparing plans for \$150,000 addition to Big Springs Hotel.

Okla., Oklahoma City—Consolidated School Dist. No. 1 voted \$30,000 bonds for school bldg. Address Dist. School Trustees.

Okla., Sand Springs—Bd. of Education, H. Clay Fisk, Supt., erect junior high school additions and improve schools; \$125,000 bonds voted; Rush, Endacott & Goff, Archts., Wright Bldg., Tulsa. 3-28

Tenn., Paris—Henry County votes in May on \$90,000 bonds for building, repair and equipment of high schools of county; plans call for addition to building at Grove High School, Paris; also Puryear, Cottage Grove, Buchanan, Springville, Henry, Fairview, Center, Antioch and Manlyville; central colored high school.

Tenn., Trezevant—Trezevant School Dist. votes April 12 on \$60,000 bonds for high and grammar school. Address Carroll County Bd. of Education, Huntingdon.

Tex., Austin—University of Texas, J. W. Calhoun, Comptroller, receives bids April 22 for \$450,000 gymnasium-auditorium; separate bids for general contract, plumbing, heating, plumbing and heating combined; plans from Herbert M. Greene, LaRoche & Dahl, University Archts., Builders Construction Bldg., Dallas. 1-31

Tex., Beaumont—Beaumont Ind. School Dist. Bd., M. E. Moore, Supt., erect \$60,000 addition to Averill School; Livesay & Wiedemann, Archts., San Jacinto Life Bldg.; bids in.

Tex., Borger—Borger Ind. School Dist. voted April 6 on \$200,000 bonds. Address Dist. School Trustees.

Tex., Eastland—Eastland Ind. School Dist. voted \$75,000 bonds for junior high school. Address Dist. School Trustees. 3-21

Tex., Fort Worth—Texas Woman's College, Marvin D. Evans, Sec., Executive Comm., having plans prepared by Wyatt C. Hedrick, Inc., First Natl. Bank Bldg., for building.

Tex., Houston—Houston Ind. School Dist., H. L. Mills, Bus. Mgr., approved plans by Charles Dieman, 3901 Main Blvd., for \$40,000 10-room school at Independence Heights; \$12,000, 2-room school in Meadowbrook addition and remodeling old Hahl elementary school and erecting 2-room and kitchen addition, \$11,000.

Va., Chilhowie—Smyth County School Bd., Marion, erect building for high school department.

Va., Richlands—School Bd., J. B. Crabtree, Chmn., receives bids April 17 on \$60,000, 18-classroom, auditorium and gymnasium school; town votes April 22 on \$30,000 bonds; State to pay half of cost.

W. Va., Bluefield—State Bd. of Control, J. S. Lakin, Pres., Charleston, selected Alex. B. Mahood, L. C. Bldg., to prepare plans for \$120,000, 3-story, 150x57 ft., fireproof administration building for Bluefield Colored Institute.

W. Va., Malden—Malden Dist. votes April 23 on \$105,000 bonds; \$80,000 school at Dana and \$25,000 school at Belle. Address Kanawha County Bd. of Education, Charleston.

Stores

Ala., Mobile—McCrary Stores Corp., 1107 Broadway, New York, erect building on Dauphin St.

D. C., Washington—John P. Neff, 3306 McKinley St., N. W., erect \$16,000, 2-story, brick and tile building, 2503 Fulton St., N. W.

Fla., Jacksonville—McPhails Chocolates, Inc., 1534 Walnut St., erect \$150,000, 4-story and basement, rein. conc. brick store; tar and gravel roof; Roy A. Benjamin, Archt., Bisbee Bldg.

Fla., Lake City—Dr. F. A. Edwards erect conc. block and stucco store; metal roof, plate glass front.

Fla., Leesburg—J. G. McCrary Co., 1107 Broadway, New York, erect store.

N. C., Asheville—Allison Realty Co. soon let contract for \$35,000, 2-story and basement, 60 x 70 ft., brick and steel store and office; built-up roof, hot air heat; V. W. Breeze, Archt.

N. C., Asheville—J. T. Bledsoe Co., 16 Government St., erect \$25,000, 2-story and basement, 100x40 ft., brick store on Haywood Road, West Asheville; tar and gravel roof.

N. C., Charlotte—W. D. Wilkinson, 35 E. Trade St., and associates erect stone, fireproof store on W. Trade St.; C. C. Hook, Archt., Commercial Bk. Bldg.

N. C., Charlotte—Cutter Realty Co., 338 1/2 N. Tryon St., remodel two buildings on S. Church St. and other on N. Tryon St.; C. C. Hook, Archt., Commercial Bk. Bldg.

N. C., Wilmington—Saunders' Drug Store, L. S. Saunders, 32 N. Front St., remodel and install fixtures in building at 32 N. Front St.; \$15,000.

N. C., Winston-Salem—Dr. C. J. Alexander, Nissen Bldg., has permit for \$12,000, 1-story and basement, 50 x 75 ft., brick and tile store, Lockland Ave. and Hawthorne road.

Okla., Oklahoma City—L. E. Springer, 343 E. 38th St., S., has permit for 2-story brick store and apartment, 343 E. 38th St.

Okla., Seminole — J. D. Campbell erect \$16,000, 2-story, 25x140 ft., fireproof store.

Tenn., Memphis—Balton & Sons, 169 Gayoso St., plan 2-story addition to building, Gayoso Ave. and Third St.

Tex., Fort Worth—Mrs. J. E. McCarthy, 1414 Pruitt St., has permit for \$22,000 brick and tile store, 2408 N. Main St.

Tex., Laredo—A. Bertal erect \$60,000, 2-story, 100x120-ft. brick store, Farragut St. and Convent Ave.; probably lease to Montgomery Ward & Co., Chicago.

Tex., Port Arthur—Alex. Bluestein, 294

Procter St., erect 1-story, 50x140-ft. brick building, 343-49 Procter St.; Livesay & Wiedemann, Archts., San Jacinto Life Bldg., Beaumont.

Tex., San Benito—Frank T. Phillips has permit for \$14,000, 1-story, 50x100-ft. brick and conc. store.

Tex., Victoria—Roselle Estate soon let contract for 1-story, 29 x 75 ft., brick and hollow tile store to be occupied by Louis Jarinkes, Tyler; Kai Leffland, Archt.

Va., Danville—W. T. Grant Co., Inc., 455 Seventh Ave., erect store, Main and Market Sts. 2-28

Theaters

Ark., Harrison—J. W. Bass erect \$35,000 theatre; seating capacity 200; B. F. Curran, Archt., Bristow.

Ga., Moultrie—J. L. D. and C. H. Powell receives bids April 15 for \$75,000, 1-story and balcony, 48x128-ft., steel frame, brick and tile theater; tar and gravel roof, tile, terrazzo and wood floors; Greer & Biggers, Archts., Valdosta. See Want Section—Building Material and Equipment. 3-28

La., West Monroe, Monroe—Dr. H. C. Cole, Loop Rd., and W. J. Sherrouse, 126 Jackson St., erect 35 x 150 ft., brick theater on Trenton St.; built-up roof, seat about 800 people; J. W. Smith & Associates, Archts., Ouachita Natl. Bk. Bldg.; bids in.

Md., Laurel—Bowen & McCoy, care John Edgar Sohl, Archt., 1107 Connecticut Ave.,

BUILDING CONTRACTS AWARDED

Association and Fraternal

Fla., Lake Worth—Carl Vogel Post, American Legion, let contract to C. A. Jensen for arena; Floyd King, Archt. 3-14

N. C., High Point—Salvation Army erect \$30,000 semi-fireproof bldg.; brick; Herbert Hunter, Archt., 116 N. Main St.; R. K. Stewart & Son, Contrs., 153 S. Main St.

Tex., Fort Worth—Masonic Home and School, Tom Fletcher, Supt., let contract at \$60,980 to Jas. T. Taylor, Natl. Bk. Bldg., for school and recreation bldg.; brick, stone and rein. conc., fireproof, 1 story and basement, irregular shape, about 172 x 160 ft., maple and pine floors, Barrett roof; W. G. Clarkson & Co., Archts., Natl. Bk. Bldg.

Bank and Office

Ala., Mobile—First National Bank, D. P. Bestor, Pres., let contract to Doullut & Ewin, Inc., Q. & C. Bldg., New Orleans, La., and Mobile, for foundations and basement of 6-story addition to bldg.; superstructure contract later; brick, stone trim, elevator, about 150 offices; Geo. B. Rogers, Archt., Van Antwerp Bldg., Mobile; bank and vault fixtures design, St. Louis Bank Building & Equipment Co., 900 Sidney St., St. Louis, Mo. 3-21

Ark., Little Rock—Mutual Real Estate Co. let contract to Geo. H. Burden Co., Moore & Turner Bldg., for \$200,000 bank building to be leased to Union Trust Co.; 70x140 ft., rein. conc. and stone, safe deposit boxes and storage space in basement; Thompson, Sanders & Gnocchio, Archts., Hall Bldg.; work under direction of Union Trust Co. 10-11

Ark., Little Rock—W. B. Worthen Co., Boyle Bldg., let contract to Gordon Walker for \$200,000 bank bldg., Fourth and Main Sts.; basement under constr.; steel beams to Arkansas Foundry Co., Sixth St.; Carthage or Batesville stone exterior, hollow tile, 2 stories and basement, 50 x 140 ft., conc. and steel; Geo. R. Mann, Wanger & King, Archts., Donaghey Bldg. 2-7

Tex., Refugio—First National Bank let contract to Sumner-Sollitt Co., Natl. Bank of Commerce Bldg., San Antonio, for rein. conc., brick and conc. bank and office building; 2-stories, about 27x56 ft.; cork tile, cement tile and wood floors, tar and gravel roof; John W. Marriott, Archt., Frost Bldg.; Roy W. Leible, Asso. Archt. 3-14

Tex., San Antonio—Following sub-contracts let on \$2,000,000 bank and office building for Alamo National Bank: Hollow metal doors and elevator fronts, Dahlstrom Metal Door Co., Jamestown, N. Y., through Metal Products Co., Linz Bldg., Dallas, Tex.; bank cages and misc. orna. iron, A. J. Bayer Co., Los Angeles, Calif., through Robt. Voigtlander, San Antonio; general excavation, A. H. Beck; elect. work, A. Martin Wright Electric Co., 308 E. Houston St.; glass and glazing, Pittsburgh Plate Glass Co., 1420 S. Alamo St.; Sargent hardware, Peden Iron and Steel Co., 1401 S. Flores St.;

Washington, D. C., erect \$40,000, 1-story, 50x125-ft. theater; cement or cinder conc. walls, Lamella roof, alternate on wood truss and steel truss, slag roof, cement floors. See Want Section—Building Material and Equipment.

Miss., Biloxi—H. M. Burnham and J. F. Smith, Archts., Goodwyn Institute, Memphis, Tenn., reported, preparing plans for \$200,000, 5-story and basement, rein. conc. and struc. steel, terra cotta trim theatre.

Okla., Oklahoma City—John Sinouppou, 39th and Kelley Sts., and associates having plans prepared for theatre on Harvey Ave.

Tex., San Antonio—Publix Theater Corp., Paramount Bldg., New York, considering erection \$1,000,000 theater; 6 to 14 stories, auditorium to seat 2000 people; Bob Boiler, Archt.

Warehouses

Ga., Valdosta—Georgia and Florida R. R., H. B. Holmes, Ch. Engr., Augusta, erect tobacco warehouse on Lee St. to be occupied by Baldwin-Lewis-Page Co.

Miss., Greenwood—Greenwood International Co. plans building, Cotton and Market Sts.

N. C., Raleigh—International Harvester Co., Chicago, erect 2-story, 80x180-ft. warehouse; also erect 60x160-ft. addition to warehouse on Norfolk Southern R. R.

Tex., Sweetwater—Magnolia Company has permit for \$14,000 brick warehouse, Elm and 14th Sts.

heating, Jud & Ormond, 703 N. Flores St.; plumbing, A. H. Shafer, 829 N. St. Mary's St.; lintels and struct. and rein. steel, Alamo Iron Works, 130 Santa Clara St.; masonry setting, Cotter Bros.; millwork, Steves Sash and Door Co., 602 Monterey St.; steel stack, Southern Steel Co., 4500 S. Presa St.; sheet metal and roofing, Sam Dean, 902 Waverly St.; steel windows and stools, Truscon Steel Co., Travis Bldg.; terrazzo, Kirkwood & Wharton, 456 Main St.; deep well, Dingman Drilling Co., all San Antonio; elect. burglar protection, American District Telegraph Co., 29 S. LaSalle St., Chicago, Ill.; granite, Cold Spring Granite Co., Cold Spring, Minn.; marble, Alabama Marble Co., 1701 Ave. A, Birmingham, Ala.; struct. steel erection, Petroleum Iron Works, Beaumont, Tex.; stack lining and asbestos clg., R. V. Aycock Co., 1308 Conti St., Houston, Tex.; stairs, Weaver Ornamental Iron Works, 1807 Carter St., Dallas, Tex.; vaults, York Safe and Lock Co., York, Pa.; Graham, Anderson, Probst & White, Archts., 80 E. Jackson Blvd., Chicago; McKenzie Construction Co., Contr., Smith-Young Tower, San Antonio. 2-21

Churches

La., Hammond—Church of God erecting Sunday school addition, East Hammond; Forbes & Starks, Contrs.

Miss., Columbus—First Presbyterian Church, Ed. L. Kuykendall, Chmn., Bldg. Comm., will let contract to D. S. McLeanahan for Sunday school; brick, stone trim, 2 stories, rein. conc. foundation; P. J. Krouse, Archt., M. & W. Bldg., Meridian. 3-7

N. C., Wadesboro—Calvary P. E. Church, K. M. Hardison, Chmn., Bldg. Comm., let contract to Sullivan & McQuague for \$18,000 brick parish house. 3-21

Tex., Austin—Wesley M. E. Church, Colored, Rev. W. L. Turner, Pastor, erect face and common brick and stone bldg., Hackberry and San Benard Sts.; 1 story, balcony and basement, rein. conc. foundation, wood and conc. floors, asbestos shingle roof; H. F. Kuehne, Archt., Littlefield Bldg.

Tex., Cuero—Methodist Church let contract to Crawford & Crawford, Yoakum, to remodel bldg.; \$15,000; add basement; enlarge and stucco auditorium. 2-14

Tex., Dawson—Methodist Church started work on \$10,000 bldg.; brick veneer; auditorium seat about 400; T. J. & J. O. Galbraith, Archts., Slaughter Bldg., Dallas, and Hillsboro; Chas. N. Davis, Contr.

Tex., Fort Worth—Bakers Chapel A. M. E. Church erect brick and stone bldg., Illinois and Humbolt Sts.; mill constr., metal ceilings and cornice, stone trim, 1 story, balcony and basement, 95 x 48 ft.; L. B. Weinmann & Sons, Archts., Texas Natl. Bk. Bldg.; O. M. Jones, care Quarles Lumber Co., gen. contract at \$27,375.

Tex., Fort Worth—University Christian Church, Dr. Gray, pastor, let foundation contract for \$150,000 stone bldg. to Wm. H.

Southwell, Fort Worth Natl. Bk. Bldg.; probably soon let gen. contract; 2 stories and basement; W. G. Clarkson & Co., Archts., First Natl. Bk. Bldg. 2-7

Tex., Kerens—Methodist Episcopal Church, South, erecting \$25,000 bldg.; tile and brick, 3 stories, 50x80 ft., conc. and wood floors, Johns-Manville roof; furnishings, equipment, etc., \$3,000; W. C. Meadows, Archt., Fort Worth; J. F. Mullins, Contr., Kerens. Address Equipment proposals to E. M. Westbrook, Kerens. 3-28

Tex., Longview—First Baptist Church erect \$20,000 Sunday school by day labor; brick, 3 stories, 44x80 ft., conc. and wood floors, conc. foundation, comp. roof; address proposals on furnishings, equipment, etc., \$2,000, to Miss Berenice Northcutt, 206 W. College St., Longview; Ferrand & Fitch, Archts., Slaughter Bldg., Dallas. See Want Section—Building Material and Equipment. 3-28

Va., Arlington—Calvary M. P. Church, Aurora Hills, Arlington County, Rev. J. W. Townsend, Pastor, erect \$26,000 first unit of \$50,000 bldg.; Colonial type, brick; C. W. Lee, Contr., Virginia Highlands.

Va., Roanoke—Belmont Baptist Church, H. L. Malone, member, Bldg. Comm., erect \$65,000 Sunday School; 4 stories, 65 classrooms, auditorium seat 1,400, \$65,000 pipe organ; Martin Bros., Contrs., 209½ First St., S. W.

City and County

Ala., Birmingham—Southern Prison Co., 4500 S. Pressa St., San Antonio, Tex., has jail work contract for \$3,000,000 to \$3,250,000 Jefferson County courthouse; 2150 tons struct. steel, Ingalls Iron Works Co., 720 Avenue D, Birmingham; plumbing, Loftis Plumbing Co., 440 Marietta St. N. E., Atlanta, Ga.; Holabird & Root, Archts., 333 N. Michigan Ave., Chicago, Ill.; Harry B. Wheelock, Asso. Archt., Steiner Bldg., Birmingham; Southern Ferro Concrete Co., Contr., 70 Ellis St., Atlanta, Ga. 3-7

La., New Orleans—Kalmien Steel Co., Atlanta, Ga., has rein. steel contract for \$2,000,000 municipal auditorium; struct. steel, Lukens Steel Co., Poland and Rocheblave Sts.; steel sash, Truscon Steel Co., Canal Bk. Bldg.; Favrot & Livaudais, Ltd., Archts., Hibernia Bldg.; Sam Stone, Jr., & Co., Consult. Archts., Masonic Temple Bldg.; Caldwell Bros., Gen. Contrs., 816 Howard Ave., all New Orleans. 3-7

Tex., San Antonio—City, C. M. Chambers, Mayor, let contract at \$67,749 to Mitchell Construction Co., Bldrs. Exch. Bldg., for library and auditorium for negroes, S. Hackberry St. near Center St.; face brick, hollow tile, steel truss, about 67x120 ft., 1 story and balcony, conc. floors, seat 900; Seutter & Simons, Archts., Bldrs. Exch. Bldg.; also let contract at \$21,168 to W. H. Balzen, 1127 S. Hackberry St., for rest room bldg., Main Plaza; stone and rein. conc., 1 story; Chas. Boelhaue, Archt., Aztec Bldg. 3-21

Dwellings

Ala., Gadsden—Gadsden Land & Building Corp., Judge Louis L. Herzberg, Pres., let contract to Parks & Co., Chattanooga, Tenn., for 25 dwellings for operating heads of proposed plant of Goodyear Tire & Rubber Co., Akron, O.; cost about \$3500 each, exclusive of heating plants and garages; Robert & Co., Inc., Archts.-Engrs., Atlanta, Ga.; E. S. Draper, Landscape Archt., Charlotte, North Carolina. 3-7

Ala., Montgomery—Mrs. Ida Higgins erect \$10,000 brick dwelling, 97 Norman Bridge Road; 2 stories; Greeson Construction Co., Contr. 3-28

Ark.-Tex., Texarkana—H. Pope Briley erect \$18,000 residence; brick and hollow tile, 2 stories and basement, 47x37 ft., oak floors, 2 tile baths, tile roof; Stewart Moore, Archt., Flatiron Bldg., Fort Worth, Tex.; owner builds.

Ark., Marianna—Dr. W. A. Thornton erect two 5-room bungalows; contract let.

Ark., Marianna—C. Traicoff erect \$10,000 residence; brick veneer, 1 story, 8 rooms; Jennings & Samuel, Contrs.

Ark., Marianna—J. H. Payne erect \$10,000 residence; Jennings & Samuel, Contrs.

D. C., Washington—L. E. Breuninger, Colorado Bldg., has permit for 2 dwellings, 1352-60 Iris St., N. W.; brick, 2 stories; \$24,000; owner builds.

Fla., Coral Gables, Miami—S. R. Carroll, Bldr., erect \$35,000 residence, 803 Alhambra Circle; ground broken; 56x70 ft.

Fla., Miami—Chas. B. Tuttle, Detroit, Mich., let contract at \$29,500 to O. M. Bristol for residence, S. Bayshore Drive; conc. block or terra cotta, 2 stories, 77x62 ft., tile and wood floors, tile roof; Aug. Geiger, Archt., 58 S. E. Seventh St., both Miami. 3-28

Fla., Miami Beach—Dr. A. B. Howell, Wilmington, Del., erect \$25,000 residence, 6818 Sheridan Ave.; conc. block, 2 stories, tile and wood floors, tile roof; C. E. Haley, Contr., Seybold Bldg., Miami.

Fla., Miami Beach—Sam Sterms, Fargo, N. Dak., erect \$16,000 residence and garage, 2800 Pinetree Drive; conc. block, 2 stories, tile and wood floors, tile roof; C. E. Haley, Contr., Seybold Bldg., Miami.

Fla., Miami Beach—H. F. Bagby erect \$18,000 residence and garage, Glamingo Terrace; conc. block, 2 stories; V. H. Nellenbogen, Archt.; C. R. Clark, Contr.

Fla., Miami Beach—Usuff Salie let contract for \$14,000 dwelling to Rodney Miller, 2618 Ferdinand St., Coral Gables; conc. block, tile and wood floors, tile comp. roofs; Paist & Stewart, Archts., Coral Gables. 2-28

Fla., St. Petersburg—Mrs. T. R. Williams, Philadelphia, Pa., erect \$25,000 brick veneer residence, 15th Ave., North, near Tenth St.; 2 stories, asbestos roof, hot water heat, garage and servants' quarters; L. C. Duncan, Contr., 612 Ninth St., North.

Fla., Tampa—Sunset Park Co., J. M. Harvey, Pres., 212 E. Lafayette St., considers erecting about 30 dwellings; Tampa Builders, Inc., Contrs.

Fla., Winter Haven—W. C. Van Cleave erect residence; Tildon & McMichael, Archts., Winter Haven; Morton & Raymond, Contrs., Auburndale.

Ga., Atlanta—F. M. Collins, Jr., erect 2 brick veneer dwellings, 19-21 Fourth Ave. N. E.; 1 story, 6 rooms and bath; \$14,000; owner builds.

Ga., Atlanta—P. B. Hopkins, Palmer Bldg., erect 2 brick veneer dwellings, 1502-06 Boulevard, N. E.; 1 story, hardwood floors, tile baths, hot air heat; \$10,000; owner builds.

Ga., Atlanta—E. Cox Haraley, 495 Angier Ave., N. E., erect 2 brick veneer dwellings, 1975 and 1989 Palafox Drive, N. E.; 1 story, 7 rooms, hardwood floors, comp. shingle roof; \$11,000; owner builds.

Ga., Augusta—Louis Scharf let contract to Sibert & Robinson, 126 Eighth St., for \$15,000 residence, Walton Way; brick and half-timber, hardwood floors, tile bath, comp. shingle roof; Willis Irvin, Archt., S. F. C. Bldg. 3-14

La., New Orleans—E. J. Rhodes, Contr., 420 S. Scott St., erect duplex, 2617-19 State St. Drive.

La., New Orleans—N. Sobel, 3540 Napoleon St., erect double residence, 5818 S. Front St.; Geo. Kral, Contr., 4712 Venus St.

La., New Orleans—Lawrence J. Cullen, 1917 Thallin St., erect \$12,000 raised bungalow, Louque St. and Canal Blvd.; Chris P. Nehlig, Contr., 1414 Desire St.

La., New Orleans—J. B. Daries, 1569 N. Dorgenois St., erect double residence, 4665 Baccich St.; J. M. Werling, Contr., 2909 St. Bernard St.

La., New Orleans—Geo. L. Lupo, Contr., 4925 S. Tonti St., erect double dwelling, Almonaster Ave. and Galvez St.

La., New Orleans—E. Bersanti erect double frame dwelling; J. M. Werling, Contr., 2909 St. Bernard Ave.

Md., Baltimore—Suburban Development Co., 5544 Gwynn Oak Ave., erecting number dwellings, 5500 block Bosworth Ave.; frame, 2 stories, about 26x28 ft., hardwood floors, stone foundations, asphalt roofs, \$2500 to \$5000 each; Jas. B. Henry, Archt., 2717 W. Lafayette Ave. See Want Section—Building Material and Equipment. 3-28

Md., Baltimore—Jas. Keelty, Bldr., 3529 Edmondson Ave., erect 22 brick dwellings and garages, 800 block Augusta Ave.; 2 stories; \$54,000; owner builds.

Md., Baltimore—Woodward Building Co., 2712 Bayanne Ave., erect 3 dwellings, 6403-07 Old Harbor Rd.; frame, 1½ stories, 24x24 ft., hot air heat; \$11,000; Saml. B. Woodward, Contr., both 3328 Elmley Ave.; J. Blake, Archt.

Md., Baltimore—Chesterfield Co. erect 27 brick dwellings, 2001-49 Chesterfield Ave., after plans by Geo. Wessel, Archt., 601 W. 40th St.; brick, 2 stories, 19.8x30 ft., slag roofs; \$68,000; owner builds.

Md., Baltimore—John Welsh, 11 E. Fayette St., erect 3 frame dwellings, 3701-05 Dolfield Ave.; 1½ stories, 22x28 ft., 26x31 ft. and 24x28 ft., slate roofs; \$10,000; Geo. Wessel, Archt., 601 W. 40th St.; owner builds.

Md., Baltimore—J. S. Downing, Bldr., 2609 Greenmount Ave., started work on brick dwelling, Homeland; 2½ stories, 38x35 ft., stone foundation, slate roof; plans and construction by owner. See Want Section—Building Material and Equipment. 3-28

Mo., Kirkwood, St. Louis—Home Realty & Building Co., 1120 Locust St., erect 3 frame dwellings, Big Bend and Henry Rds.;

1 story, 24x28 ft., slate coated roof, hot air furnaces; \$10,000; owner builds.

Mo., St. Louis—P. M. Will, 4226 Ellenwood St., erect 5 brick dwellings, 6200 block Marquette St.; 1 story, 26x40 ft., comp. shingle roofs, furnace heat; \$15,000; R. A. Will, Archt., both 4226 Ellenwood St.; owner builds.

Mo., St. Louis—J. Stuckenberger, 3706 Utan St., erect 2 brick dwellings, 5921-23 Marquette St.; 2 stories, 25x28 ft., asphalt shingle roofs; \$12,000; H. Schaumburg, Archt., 3627 Connecticut St.; owner builds.

Mo., St. Louis—Fries & Leigh erect 2 brick dwellings, Moorlands; 44x36 ft. and 43x27 ft.; \$12,000; owners build.

Mo., St. Louis—O. A. Barth, 5728 Lisette St., erect \$10,000 brick residence, 6701 Leona St.; 2 stories, 38x47 ft., tile roof; H. Guth, Archt., 813½ Chestnut St.; Barth Building & Real Estate Co., Contr., 4149 Gravois St.

Mo., St. Louis—Northwest Realty Co., 3901 Bingham Court, erect 3 brick dwellings, Bingham Court; 2 stories, comp. roofs, hot air heat; \$10,000; owner builds.

Mo., St. Louis—W. J. Lembeck, 4331 S. Compton St., erect 2 brick dwellings, 4656-60 Grace St.; 1 story, 25x44 ft., comp. shingle roofs, hot air heat; \$10,000.

Mo., St. Louis—O. Meissner, 3943 Utah Place, erect \$12,000 residence and garage, 3860 Federer Place; brick, 2 stories, 30x44 ft., comp. shingle roof; Adolph Stauder, Archt., 6032 S. Kingshighway; Gruenwald Construction Co., Contr., 3402 Arsenal St.

Mo., St. Louis—Samoto Realty & Building Co., Paul Brown Bldg., erect 2 brick dwellings, Moorlands; 33x36 ft.; \$12,000; owner builds.

Mo., University City, St. Louis—H. J. Barngrove, 312 Calumet Bldg., erect \$10,000 residence and garage, 7471 Kingsbury Blvd.; brick, 2 stories, 35x38 ft., asbestos shingle roof, steam heat; Russell A. Conzleman, Archt.; B. J. Charleville, Contr., both 114 N. Seventh St.

Mo., University City, St. Louis—M. M. Hendler, 7350 Amherst St., erect 3 brick dwellings, 7224-38 Pershing Ave.; 2 stories, 29x39.5 ft., slate roofs, vapor steam heat; \$10,000 each; Edw. B. Kelley, Archt., 6625 Delmar Blvd.; owner builds.

Mo., University City, St. Louis—E. L. Fisher erect \$10,000 residence, 7344 Kingsbury St.; brick, 2 stories, 38x32 ft., slate roof, hot water heat; plans and constr. by owner.

Mo., University City, St. Louis—Margaret Damon, 5369 Cabanne St., erect \$10,000 residence, 7248 Balsa St.; brick, 1 story, 32x52 ft., slate roof, oil heat; Michael Laherty, Contr., 1125 Kentucky St.

Mo., Webster Groves, St. Louis—W. E. Goetz, 402 E. Big Bend Blvd., erect 2 brick and tile dwellings, 404 E. Big Bend and 427 California St.; 2 stories, 29x32 ft.; owner builds.

N. C., Charlotte—J. H. Jones, 2010 Charlotte St., erect \$12,000 residence, 2000 Dilworth Rd.; brick veneer, 1 story, 8 rooms, comp. roof; day labor.

N. C., Greensboro—W. J. McPherson, 625 Arlington St., erect frame residence, 904 Richardson St.; 1 story, 34x26 ft., pine floors; Harwell & Stutts, Contrs., Box 1154.

N. C., Greensboro—T. M. Starr, 123 McIver St., erect frame residence, 1110 Gregory St.; 1 story, 46x30 ft., comp. roof; day labor.

N. C., Raleigh—C. V. York, Odd Fellows Bldg., erect \$19,000 brick veneer residence, Cowper and Jarvis Sts.; 2-stories, 10 rooms; day labor.

N. C., Raleigh—E. W. Franklin erect \$10,000 residence, Clark St.; brick, 2 stories, 8 rooms; day labor.

N. C., Winston-Salem—Santford Martin, West End Blvd., erecting residence, Roslyn Road; Robt. E. Hennings erecting residence, Reynolda Road; both brick, 8 rooms.

Okla., Tulsa—Dr. C. I. Trimble, 17½ W. Third St., erecting residence, Country Club Heights Addition; J. E. Stegall, Archt.; Don Fellows, Landscape Archt., care owner.

Tenn., Knoxville—W. M. Fulton, 820 Temple Ave., let contract to J. M. Dunn & Son, 245 Broad St., for \$250,000 residence, Kingsport Pike; Italian type, native sandstone, tile roof, roof garden, elevator, swimming pool, 115x200-ft. formal garden, pools; later plans hangars and private landing field; Barber & McMurtry, Archts.; Chas. F. Lester, Landscape Archt., both General Bldg., Knoxville; ceiling decoration in charge of Hugh Tyler, New York and Knoxville; gatekeeper's lodge under construction. 12-13

Tenn., Memphis—C. M. Jacobson Co., C. M. Jacobson, Pres., First Natl. Bk. Bldg., erect 28 brick bungalows in Magnolia Oaks sub-

division, in addition to 8 nearing completion; 6 and 7 rooms; owner builds.

Tenn., Memphis—R. S. Magee, Bldr., erect 3 dwellings, Belleaire Drive, Belleaire Woods; 2 stories, brick and stone; about \$60,000; owner builds.

Tex., Amarillo—Dr. E. A. Rowley, Puckett Bldg., erect \$10,000 residence, 1004 Crockett St.; brick; Reppert Lumber Co., Contr., 1310 W. Sixth St.

Tex., Amarillo—C. F. Collier, 1823 Polk St., erect \$10,000 brick residence, 2606 Haydent St.; Reppert Lumber Co., Contr., 1310 W. Sixth St.

Tex., Fort Worth—Karl A. Crowley, 309 Petroleum Bldg., completed excavating for \$15,000 residence, 3554 Tulsa Way; brick veneer, 2 stories and basement, 49 x 31 ft., oak floors, conc. foundation, tile roof, tile baths, metal lath, gas steam heat; L. W. Womack, Contr., Dallas.

Tex., Galveston—A. A. Horne, 3207 R¹/₄ St., completed foundation for \$15,000 residence; face brick and tile, 2 stories, 27 x 53 ft., oak floors, asbestos slate roof; D. N. McKenzie, Archt.; Frank Hadcock, Contr., 1702 Avenue G. 3-28

Tex., Georgetown—Elmer Peterson, John Engvall and R. J. Kidd, Principal, High School, each erecting residence.

Tex., Goose Creek—E. T. Arnett erect English type residence; brick veneer, 2 stories; Curtis & Thomas, Archts., Post-Dispatch Bldg.; C. I. Fortenberry, Contr., both Houston.

Tex., Houston—Chas. Biesel erect \$21,000 residence, 2521 Riverside Drive, Riverside Terrace; 2 stories, 10 rooms, rein. conc., brick, hollow tile, stone trim; Chas. A. Die-man, Archt., 3901 Main Blvd.; day labor.

Tex., Houston—Braeswood Corp., Geo. F. Howard, Pres., let contract to Johnson & Gustavson for 2 dwellings, Braeswood; French and English types, 2 stories, 7 rooms; \$40,000; Carl A. Mulvey, Archt., Second Natl. Bk. Bldg.

Tex., Houston—Frank Clay, Washington Ave., erecting \$15,000 residence, 2403 Calumet St.; brick veneer, 2 stories, 50x49 ft., oak and tile floors, rigid asbestos roof; Hedrick & Gottlieb, Archts., Post-Dispatch Bldg.; W. J. Goggan, Contr., 1106 Banks St. 3-28

Tex., San Antonio—Wm. M. Fortran, Gunter Bldg., erect Spanish type residence, Olmos Park; tile and stucco, Altee B. & Robt. M. Ayres, Archts., Bedell Bldg.; Woodward & Hardie, Inc., Contr., 230 Seguin St.

Tex., San Antonio—Homer Fry let contract to Henry Whitley, 411 W. Evergreen Ave., for stucco residence; 2 stories, 9 rooms, 2 baths; H. B. Thomson & Fred Gaubatz, Asso. Archts., Alamo Bk. Bldg.

Tex., San Antonio—Ferguson & Wood erecting 3 face brick dwellings, Hollycrest.

Tex., San Antonio—P. F. Allan, 810 San Pedro St., erecting several dwellings, Terrell Hills; Altee B. & Robt. M. Ayres, Archts., Bedell Bldg.; Willard E. Simpson Co., Engr., Natl. Bk. of Commerce Bldg.

Va., Austinville—C. S. Humphrey started work on brick residence near Austinville.

Government and State

D. C., Washington—Loftis Plumbing Co., 440 Marietta St. N. W., Atlanta, Ga., has plumbing contract at \$125,000 for \$10,000,000 bldg. for Bureau of Internal Revenue; structure designed in Supvy. Archt.'s office in collaboration with Board of Architectural Consultants; James Baird Co., Contr., 1800 E St. N. W., Washington. 2-21

La., New Orleans—Bond Electric Engineering Co. has contract for elect. work on \$150,000 Governor's mansion; Weiss, Dreyfous & Seiferth, Archts., Maison-Blanche Bldg.; J. V. & R. T. Burkes, Archt., New Orleans Bk. Bldg., New Orleans. 3-21

Va., Norfolk—Wm. F. Betzell, 1406 Monroe St., Washington, D. C. has contract at \$9990 for new roof covering, etc., Federal building.

Hotels and Apartments

Ala., Mobile—F. Henry Peters soon begin work on \$75,000, Spanish type Gazzam Apartments, 1211 Dauphin St.; 20 suites, built-in features, steam heat; Calvert Scott, Archt., both Staples-Powell Bldg.; E. A. Sheldon, Sr., Supt. of construction.

Ark., Little Rock—P. D. Willis, 1728 High St., started work on \$35,000 2-story, brick, Spanish type, 16-apartment 209 E. 8th St.; tile and comp. roof; C. M. Sandlin, Contr., 3316 W. 11th St.

Ark., Marianna—R. L. Hampton, Contr., soon start work on 8-apartment.

D. C., Washington—A. Joseph Howar, Bldr., 819 Fifteenth St., N. W., has permit

for \$400,000, 11-story, brick and tile apartment, 2115 Pennsylvania Ave., N. W.; David L. Stern, Archt., 1412 Eye St., N. W.

D. C., Washington—Southern Construction Co. has permit for \$250,000, 8-story, brick and conc. apartment, 208-10 Massachusetts Ave., N. E.

D. C., Washington—M. & R. B. Warren, 917 Sixteenth St., N. W., have permit for \$560,000, 5-story, brick and conc. apartment, 3000 Tilden St., N. W.

Ga., Atlanta—H. A. Nichols, 142 Brighton road, N. E., erect \$60,000, 2-story and basement, brick veneer 28-apartment, 1075-81 Columbia Ave., N. E.; comp. roof, hardwood floors, tiled baths, steam heat; owner, Archt.-Bldr.

Ga., Atlanta—O. T. Hennessee, 653 Juniper St., N. E., erect \$23,000, 2-story and basement, brick, cast stone trim, 20-apartment, 1062 Piedmont Ave., N. E.; built-up roof, hardwood floors, tiled baths, steam heat; owner builds.

Ga., Savannah—Griffin Realty Co., American Bldg., erect 2-story and basement, 1300 E. Henry St.; brick veneer, comp. roof, hardwood floors, tiled baths; owner builds.

Mo., Kansas City—John H. Kelley & Son, 6333 Grand Ave., soon start work on two Chief Apartment Hotels, Armour Blvd. and Central St.; Harry Foster Almon, Archt., Orear-Leslie Bldg.

Mo., St. Louis—G. Metal, 4627 Ellenwood St., erect two 2-story, 25 x 43 ft., brick tenements, 3820-24 Keokuk St.; comp. roofs, hot air heat, \$10,000; owner, Archt.-Bldr.

Mo., St. Louis—H. Kobermann erect 2-story, 103 x 124 ft., brick tenements, 415-23 Kansas St.; \$35,000, comp. roofs; A. Kobermann, Archt.-Bldr., both 7242 Gravois Ave.

Mo., St. Louis—Consolidated Realty and Investment Co., care Nash Construction Co., Contr., 6000 Delmar Blvd., University City, erect \$100,000, 2-story, brick, 52-apartment, 4130-34 Washington Blvd.; C. E. Etz, Archt., Title Guarantee Bldg.

Mo., St. Louis—Arsenal-Watson Co., 4540 Gravois Ave., erect \$10,000, 2-story, 34x45-ft. brick tenement, 6451-53 Arsenal St.; comp. roof, hot air heat; owner, Archt.-Bldr.

Mo., St. Louis—Lordell Realty Co., care J. W. Kopman Construction Co., Contr., 592 Arcade Bldg., erect 15-story and basement, 92x153 ft., brick and rein. conc., fireproof, terra cotta trim, 12-apartment building, Lindell Blvd. and Taylor Ave.; W. S. Frank, Archt.; T. J. Craven Engineering Co., Engr., both Century Bldg.

Mo., St. Louis—Ruth Russell Realty Co. erect \$15,000, 2-story, 90x50-ft. brick tenement, 4158-64 Green Lea place; tar and gravel roofs, hot air heat; H. Schmidt R. & C. Co., Contr., both 4164 W. Florissant St.

Mo., St. Louis—A. C. Tucker, 5333 Pershing Blvd., completed foundation for \$125,000, 3-story, 73x81-ft., fireproof apartment, 7560 Byron St.; oak floors, tar and gravel roof; Kaplan McGowan Co., Contr., American Trust Bldg.; R. Cronzelman, Archt., Fullerton Bldg.; Truscon Steel Co., Engr., Ambassador Bldg.

Mo., St. Louis—West End R. & C. Co., 3416 Union St., has permit for five 2-story, 32x45-ft. brick tenements, 5034-52 Pernod St.; \$50,000; tar and gravel roofs, hot air heat.

Mo., St. Louis—Lenore Realty and Investment Co. has permit for \$15,000, 3-story, 90x25 ft., brick tenement, 4236 McPherson St.; asphalt roof; Liebowitz Realty Construction Co., Bldr., both 4955 Delmar Blvd.

Mo., St. Louis—May Building and Investment Co. 808 Chestnut St., erect \$40,000, 3-story, 60x105 ft., brick tenement, 1949 Alfred St.; comp. roof, steam heat; F. G. Avis, Archt., 1921 Big Bend Road; owner builds.

Mo., St. Louis—H. W. Simon, 4569 Athlone St., erect two 2-story, 32 x 50 ft., brick tenements, 4108-14 Clarence St.; \$14,000; tar and gravel roofs, hot air heat; Harold C. Simon & Co., Archts.-Bldrs., 4155 N. Euclid Ave.

Mo., University City, St. Louis—Berkley Construction Co., 6625 Delmar Blvd., erect two 2-story, 26x46 ft. brick flats, 7224 and 7228 Tulane Ave.; comp. shingle roofs, hot water heat, \$14,000; owner, Archt.-Contr.

Mo., University City, St. Louis—Earl G. Smith, 7053 Forsythe St., erect two 2-story, 25 x 50 ft., brick flats, also 1-story brick garages, 7316 and 7320 Lindell Blvd.; \$20,000, tile roofs, steam heat; E. A. Ramsey, Contr., 6236 Lexington St.

Mo., University City, St. Louis—J. E. Callahan, erect 2-story, 26 x 48 ft., brick flat and 1-story brick garage, 7314 Lindell Blvd.; \$10,000, comp. roofs, hot water heat; International Co., Contr.; Gill-Jackson, Archts., all Buder Bldg.

Tenn., Nashville—Washington Realty Co., Homer Colley, Sec.-Treas., excavating for \$350,000 Robert E. Lee Apartments, 2108-16 Hayes St.; 250-ft. frontage, 72 units, rein. conc., brick, Bedford stone, fireproof, 2 automatic elevators, refrigeration, disappearing beds, built-in features; C. K. Colley & Co., Archts., Fourth and First Bldg.

Tex., Corpus Christi—Mr. Rossi let contract to Falbo & Guido Construction Co., 514 N. San Saba St., for \$20,000, 2-story, tile and stucco, 8-apartment; Dielman & Levy, Archts., 216 Furman Bldg.

Tex., Galveston—Jake Davidson, 2928 J St., let contract to Tom Brown for \$20,000, 2-story, 93x50 ft., brick veneer, rein. conc., stone trim, 12-apartment, 8th St. and Broadway; Andrew Fraser, Archt., Am. Natl. Insurance Bldg. 3-21

Miscellaneous

Ark., Rogers—R. H. Whitlow let contract to Bamback Bros. for first unit of "drive in" market.

Miss., Greenwood—Fernwood Country Club construct 45x105-ft. conc. swimming pool and 2 tennis courts; also plans deep well for water supply, lighting fixtures, repainting clubhouse; \$15,000.

Railway Stations, Sheds, Etc.

Okla., Oklahoma City—St. Louis and San Francisco Rwy., F. G. Jonah, Ch. Engr., has permit for \$70,000, 1 and 2-story, 600x40 ft., brick and conc. freight station, 100 E. Noble Ave.; Holmboe Co., Contr., 426 W. Second St. 3-21

Schools

Ala., Huntsville—Bd. of Education let contract to G. A. Rodgers for rebuilding Huntsville High School gymnasium damaged by fire.

Fla., Bartow—Following sub-contracts awarded on Junior High School for which Albinson & Co., 185 E. Main St., have general contract at \$107,000: Electrical, \$6220, Lipscomb & Roe Electric Co., 211 E. Lemon Ave., Lakeland; plumbing \$6272, W. A. Joughin & Co.; heating, vacuum system, \$7188, J. E. H. Dorsett, 111 S. Florida Ave., Lakeland; E. R. James, Archt., 950 Floral Ave.; D. Holsinger, Supvy. Archt. 2-14

Ga., Atlanta—M. L. Thrower, Thrower Bldg., erect \$40,000, 2-story and basement, 80x77-ft., rein. conc. and brick store and office, 90-6 Mitchell St., S. W.; tar and gravel roof, stone trim, steam heat; owner, Archt.-Bldr.

La., Baton Rouge—Sacred Heart School Mission let contract at \$35,900 to L. W. Eaton for 2-story, brick and stone trim, 12-classroom elementary school; Wm. T. Nolan, Archt., Canal Bk. Bldg. 2-7

La., New Orleans—Wm. Feldman let contract to Gervais F. Favrot, Balter Bldg., for remodeling building, Royal and Conti Sts.; \$23,794. 2-21

La., New Orleans—Orleans Parish School Bd. let contract to Caldwell Bros., 816 Howard Ave., for \$20,000 improvements to school, Valence and LaSalle Sts.

La., Shreveport—M. A. Stanton, let contract at \$7375 to McMichael Construction Co. for 1-story brick store on Van Loan St.; Edw. F. Neild, Archt., both City Bk. Bldg.

La., Shreveport—Mrs. Fannie Noel let contract at \$43,107 to Welch & McLain for 2 stores and filling station, Creswell and Olive Sts.; M. D. Weeks, Archt., 816 Hope St. 3-21

Miss., Columbus—American and Venetian Marble Co., 615 Julia St., New Orleans, has contract for terrazzo flooring for buildings at Mississippi State College for Women; L. W. Hancock, Contr., 26th Ave., Meridian; Claude H. Lindsley, Archt., Lamar Life Bldg., Jackson. 12-27

Miss., Ellisville—Kemp Machinery Co., Hattiesburg, has contract at \$17,500 for roofing for buildings at State Colony for Feeble Minded for which Massengale & McIntosh, Citizens Bank Bldg., Hattiesburg, has general contract at \$247,002; Claude H. Lindsley, Archt., Lamar Life Bldg., Jackson. 3-14

Okla., Luther—Bd. of Education, J. E. Huntington, Clk., let contract at \$14,000 to W. S. Dunsmore, Tulsa, for 1-story, 76 x 96 ft., brick high school auditorium and gymnasium; Hawk & Parr, Archts., First Natl. Bk. Bldg., Oklahoma City. 3-21

Okla., Tulsa—Bd. of Education, W. F. Graham, Bus. Mgr., let contracts at \$56,756 and \$64,280 to Rucks-Brandt Construction Co., Mid-Continent Bldg., for Sequoyah and Franklin school additions, respectively; at \$75,995 to R. K. Hughes Co. for Bernard school addition; at \$81,151 to W. R. Grimshaw Co., Kennedy Bldg., for Sidney Lanier school; work on additions to Whittier, Ken-

dall, Jefferson, Celia Clinton and Pershing schools under way, contract recently let to Tankersley Construction Co.; Leeland I. Shumway, Archt., Alexander Bldg.

3-14 and 3-7

Tenn., Selmer—McNairy County considering issuing \$121,000 bonds for school purposes. Address Board of Education.

Tex., Harlandale, San Antonio—Bd. of Education, M. L. Rees, 410 Pacific Ave., let contract at \$17,785 to C. C. Dishman, 305 Mary St., for 1-story, brick, 5-classroom addition to Huff School; Morris & Noonan, Archts.-Engrs., Builders Exchange Bldg., San Antonio.

3-21

Tex., Houston—Houston Ind. School Dist., H. L. Mills, Bus. Mgr., let contract at \$94,013 to Woodruff Construction Co., for \$110,000, 15-classroom and shop addition to John Marshall Jr. High School; plumbing and heating, \$6,638 and \$10,600, Lee Rogerson, 908 Truxillo St.; wiring, \$3735, Alan T. Cooke & Co., Esperson Bldg.; Hedrick & Gottlieb, Inc., Archts., Post-Dispatch Bldg.

3-21

Tex., Houston—Gulf Coast Tile and Marble Co., 912 Hutchins St., has contract for installing tile and marble in Phyllis Wheatley School for which Bace Construction Co., Post-Dispatch Bldg., has general contract at \$156,220; Hedrick & Gottlieb, Inc., Archts., Post-Dispatch Bldg.

3-28

Tex., McCamey—McCamey Ind. School Dist. Trustees erect \$125,000, 2-story, 220x80 ft. grade school; Clem Anderson Construction Co., Contr., 1010 W. 6th St., Amarillo; The Butler Co., Archt., Lubbock. See Want Section—Building Material and Equipment.

W. Va., Parkersburg—Bd. of Education let contract at \$265,352 to R. L. Brown, 514 George St. for Junior High School; Warner, Tucker, Silling & Hutchisson, Archts., Masonic Temple Bldg., Charleston; T. T. Sansbury, Asso. Archt., Guaranty Bldg., Parkersburg.

1-24

Stores

Miss., Hattiesburg—Hattiesburg Drug Store, E. J. and Pearl Williams, Prop., started work on 25x46-ft. brick building, Main and Walnut Sts.

Mo., St. Louis—H. & D. Friedman erect \$10,000, 2-story, 52x50-ft. brick store and tenement, 3600-6 Watson road; comp. roof, hot air heat; Arsenal-Watson Co., Archt.-Contr., both 4540 Gravois Ave.

Okla., Oklahoma City—C. G. Beveridge, Contr., 601 W. 34th St., has permit for \$20,000, 1-story, brick store on Harrison Ave.

Okla., Tulsa—Allen & Scott let contract to DeWitt & Howard for \$16,000, 1-story and basement, 50 x 113 ft., brick store; John V. Starr, Archt., 102 S. Owasso St.

3-21

Okla., Tulsa—L. D. Lewk, Natl. Bank of Commerce Bldg., and S. D. Pickering, 1415 S. Norfolk St., broke ground for brick building, 5th St. and Yale Ave., Kendall View addition.

Tenn., Chattanooga—G. B. Glenn erect three 1-story business buildings, 1447 Market St.; \$17,000; Chambers & Son, Contrs., Chamberlain Bldg.

Tex., Amarillo—Fred Bone of Fred Bone Construction Co., Amarillo Bldg., erecting retail store, 10th Ave. and Polk St., to be leased to Sears, Roebuck & Co.; Rittenberry & Carder, Archts., Blackburn Bldg.

Tex., Corpus Christi—Grossman Brothers started remodeling building on Leopard St.; new front; H. A. Schoenfeld, Contr., 1223 15th St.; Hardy & Curran, Archts., Nixon Bldg.

3-28

Tex., Dallas—Laclede Steel Co., Arcade Bldg., St. Louis, has contract for 400 tons rein. steel for \$250,000 addition to retail store for Sears, Roebuck & Co., Chicago; B. W. Construction Co., Gen. Contr., 720 Cass St., Chicago.

3-7

Tex., Marion—John Hicks, Marion, let contract at \$10,600 to C. H. Blount, San Antonio Loan and Trust Bldg., for 1-story, 50x85 ft., brick, conc. and tile store; John M. Marriott, Archt., Frost Bldg.; Roy W. Leible, Asso. Archt.; Beretta-Stiles Co., Inc., 1203 Natl. Bank of Commerce Bldg., all San Antonio.

3-28

Tex., San Benito—Frank T. Phillips started work on 1-story, 50x100 ft., brick store, N. Sam Houston Blvd. and Heywood St., for Rio Grande Hardware and Machinery Co.

Tex., Seguin—Henry Donegan let contract to Albert Nolte for 1-story, 30x75-ft. brick and hollow tiles store; wood and cement floors, tar and gravel roof; Marvin Eickenroht & Bartlett Cocke, Archts., 801 Maverick Bldg., San Antonio.

3-28

Va., Portsmouth—Morse-Parker Motor Supply Co., Inc., 711 High St., erecting \$15,000, 1-story, 80x100 ft., brick and steel store, 209-15 High St.; gravel roof, conc. floors; J. J. Smith, Contr., 648 Webster Ave.; L. C. Major, Archt.

3-28

Theaters

La., Monroe—Herman and Sig Masur, 900 N. Second St., let contract at \$20,000 to W. C. Salley for 1-story and balcony, rein. conc., brick, stone trim, fireproof theater on Desiard St.; built-up comp. roof, seat 800 people; J. W. Smith & Associates, Archts., both Ouachita Natl. Bk. Bldg.

3-21

Warehouses

Mo., St. Louis—Broderick & Bascom, 4328 Union St., erect \$85,000, 1 and 2-story, 143x218 ft., brick office and warehouse, 4201-7 Union St.; Wimmer Contracting Co., Contr., 916 Victoria Bldg.; Larking Engineering Co., Archt., 4th and Market Sts.

WANT SECTION

THE CLASSIFICATIONS IN THIS SECTION ARE:

Machinery and Supplies

Under this heading are reported requests for data, prices and literature and information on machinery, supplies and miscellaneous materials of a wide variety.

Building Materials and Equipment

This division comprises all classes and kinds of materials and equipment used in building and construction projects of every kind.

Bids Asked

Includes bids asked by U. S. Government, States, districts, municipalities, firms and individuals for machinery, materials, supplies and construction work.

Items in this department are published without charge and these columns are open for the publication of wants of all kinds relating to construction work, machinery, materials and supplies.

Machinery and Supplies

Automatic Control.—O. H. Store, 7 E. Church St., P. O. Box 917, Tarboro, N. C., wants prices and data on electrical, automatic cut-off for stopping motor and pump when water tank is filled.

Cigarette Manufacturing Machinery and Supplies.—Wilkerson Realty Co., Panama City, Fla.—Wants prices on machinery and supplies for making cigarettes.

Cotton Gin.—Midway Gin Co., Hobart, Okla.—Wants 4 stand 80-saw gin for cotton gin at Komalty.

Cranes (Overhead).—W. M. Smith & Co., Birmingham, Ala.—Wants prices and data on two 10 or 15-ton, overhead cranes, 40 to 75-ft. span.

Grapefruit Canning Equipment.—C. W. Long, Bldg. Engr., Box 295, Lake Wales, Fla.—Plans establishing grapefruit canning plant and wants information regarding grapefruit canning plant equipment, including stainless steel sectionizing tables.

Hoists.—Globe Equipment Co., P. A. Box 929, 1009 Myrtle Ave., Jacksonville, Fla.—Wants prices and data on 2 small steam engine hoists for elevators, about 12-h. p. each.

Locomotive (Steam).—Bester-Long Co., (General Constructors), 439-441 S. Potomac St., Hagerstown, Md.—Wants prices and data on used steam locomotive, standard gauge, consolidated type, 55 to 70-ton, total weight, good condition.

Magnet (Electric).—David S. Joel, P. O. Box No. 33, Greenville Station, Jersey City, N. J.—Wants prices and data on used electric magnet, type 4SA, size 45-in., manufactured by Electric Controller Mfg. Co., first-class condition.

Necktie Making Machinery and Supplies.—E. H. Wilkerson, Panama City, Fla.—Wants prices on necktie machinery and supplies.

Planer and Matcher.—Oliver Carter (Mchy. Dealer), Wilmington, N. C.—Wants prices

and data on high speed, 4-side planer and matcher, 6x15, equipped with shaving fan and dust pipe system.

Rock Crusher.—Klein Bros. Co., Hico, Tex.—Wants prices and data on portable rock crusher to crush stone, 1½ to 2½ inches.

Wire-working Machinery.—M. K. Schilling, 1569 Magazine St., New Orleans, La.—Wants prices and data on device for making head similar to nail head, on No. 12 (American gauge) wire; prefers small hand outfit; possibly use large power outfit.

Lot W. Johnson (Mchy. Dealer), Lake City, Fla.—Wants prices and data on following used equipment:

(1) **Engine (Oil).**—Two 120 or 130-h.p. oil engines.

(2) **Lathe.**—60-in. swing, to take 20 ft. between centers; also 54-in. swing, 18 ft. between centers.

E. W. Cooper, Engineer, 603 Bennie-Dillion Bldg., Nashville, Tenn.—Wants prices and data on following equipment:

(1) **Excavator.**—slackline, cableway excavation outfit, Saverman or equivalent, for use in sand and gravel deposit; bucket to be 2 or 2½-cu. yd., electrically driven hoist, d. e. preferred, with or without main track cable.

(2) **Bucket (Scraper).**—Crescent bottomless, Saverman or equivalent, ¼-yd. for handling sand.

Clifton Machinery Co., 1023 W. Sixth St., Cincinnati, Ohio—Wants prices and data on following:

(1) **Air Compressors.**—80 to 350 ft. per minute capacity, modern type, good condition, enclosed, with unloader and idler pulley

(2) **Blowing Machines.**—Demler Core

(3) **Cranes.**—electric, traveling, 40 to 70-ft. span, 10 to 25-ton capacity

(4) **Sand Mixers (Foundry).**—Simpson or equivalent

(5) **Turbine Blowers.**—Spencer, 2,000 to 5,000 cu. ft. per minute capacity.

Miscellaneous.

Brass Melting Furnaces.—O. H. Store, 7 E. Church St., P. O. Box 917, Tarboro, N. C.—Wants prices and data on small, low pressure brass melting furnaces with crude oil burners.

Drain Pipe (Soil).—Nicholas G. Roosevelt, Gippy Plantation, Moncks Corner, S. C.—Wants prices and data on soil drain pipe.

Greenhouse Supplies.—Wilkerson Realty Co., Panama City, Fla.—Wants prices on glass and other supplies for greenhouse.

Mail (Relay).—Globe Equipment Co., P. O. Box 929, 1009 Myrtle Ave., Jacksonville, Fla.—Wants prices and data on relay mill, complete with angle bars and bolts, 56 to 58 to 60-lb.

Chamber of Commerce, Marianna, Ark., wants prices, specifications, materials, etc., for swimming pool for city of 3000 population.

Hamlet Golf Club, Inc., Hamlet, N. C., developing golf course and wants: **Mower Roller.**

Nacogdoches Canning Co., Roland Jones, Nacogdoches, Tex., wants following for vegetable canning plant:

- (1) **Cans**
- (2) **Labels**
- (3) **Scale Tickets**
- (4) **Shipping Crates**
- (5) **Tomato Gathering Baskets.**

A. S. Owen, Chalybeate, Ga.—Wants prices and data on following:

- (1) **Aluminum (Sheet)**
- (2) **Bottles (Glass).**—½ pint capacity, with mouth size of bottom.
- (3) **Stoppers (Cork)**
- (4) **Stoppers (Rubber)**
- (6) **Wire (Aluminum).**

Building Material and Equipment

Clem Anderson Construction Co., Contr., 1010 W. 6th St., Amarillo, Tex., wants prices on tile for \$125,000 school at McCamey, Tex.

J. S. Downing, Bldr., 2609 Greenmount Ave., Baltimore, Md., wants prices on following for dwelling:

Flooring—hardwood, linoleum, tile, composition.
Limestone
Roofing—slate.

John Edgar Sohl, Archt., 1107 Connecticut Ave., Washington, D. C., wants prices on following for \$40,000 theater, Laurel, Md., for Bowen & McCoy:

Flooring—linoleum, terrazzo, tile
Metal doors
Roofing—built-up, tile
Tile—interior
Ventilators.

Emery Kinkead, 2815 Grinstead Drive, Louisville, Ky., wants prices on following for \$10,000 apartment:

Electric Refrigerators
Flooring—hardwood, linoleum, tile
Mail chutes
Plaster board.

Ingram & Rowland, 24 Kirk Ave., W., Roanoke, Va., want prices on following for \$60,000 apartment:

Flooring—linoleum
Incinerator
Mail Chutes
Plaster Board
Roofing—asbestos shingle, asphalt shingle
Steel Sash and Trim.

A. Ziegenfelder, Contr., Gulfport, Miss., wants prices on following in connection with remodeling building for stores for Mrs. Nor-eta L. Yerger:

Cast Stone
Marble.

Hugh E. White, Archt., Gastonia, N. C., wants prices on following for \$40,000 apartment for A. E. Woltz:

Electric Refrigerators
Flooring—hardwood, tile
Gas Ranges
Roofing (hip)—asphalt shingle.

Midway Gln Co., Hobart, Okla., wants prices on following for cotton gin at Komalty:

Roofing—galvanized iron.

Bill & Traber, Archts., 1008 Broadway, Columbia, Mo., want prices on following for \$35,000 fraternity house:

Celotex or equal
Electric Wiring
Flooring—hardwood, tile
Hardware
Heating
Limestone
Metal Lath
Roofing—asphalt shingle
Plumbing
Steel Joists
Tile—hollow.

Alvin R. Moore, Archt., Century Bldg., Tallahassee, Fla., wants prices on following for \$50,000 school, Chaires, Fla.:

Cast Stone
Flooring—tile, composition
Roofing (hip)—asbestos shingle
Steel Sash and Trim.

Rev. John L. Wharton, Pastor, First Baptist Church, Longview, Tex., wants prices on asbestos shingle, asphalt shingle and tile roofing for \$20,000 Sunday school.

Robt. Kerr, 1101 White St., Key West, Fla., wants prices and data on iron store fronts.

F. Hakelom, Box 1042, Beeville, Tex., wants prices on tile for store and garage.

Widener & Patterson, Contrs., 1312 E. 76th St., Kansas City, Mo., want prices on following for \$35,000 bldg.:

Flooring—hardwood, linoleum, tile
Limestone.

John McM. Cook, 1021 Big Bend Blvd., St. Louis, Mo., wants prices on following for \$50,000 apartment for B. S. Cornwell:

Electric Refrigerators
Flooring—hardwood
Roofing—built-up.

John T. Bartlett, Collinsville, Ala., wants prices on following for residence:

Flooring—hardwood
Roofing—asphalt shingle.

Rev. J. U. McAfee, Pastor, M. E. Church, South, Kerens, Tex., wants prices on following for \$25,000 church:

Flooring—linoleum
Metal Ceilings
Plaster Board
Rolling Partitions
Roofing (hip)—built-up
Brass and Bronze Work.

Suburban Development Co., 5544 Gwynn Oak Ave., Baltimore, Md., wants prices on following for dwellings:

Electric Refrigerators

Flooring—hardwood, linoleum, tile

Roofing—asphalt, shingle

Steel Sash and Trim

Greer & Biggers, Archts., Valdosta, Ga., wants prices on following for \$75,000 theatre for J. L. D. & C. H. Powell, Moultrie, Ga.:

Cast stone
Flooring—terrazzo, tile
Metal Doors
Roofing—built-up.

W. F. Bonsack, Contr., 1659 Alton road, Miami Beach, Fla., wants prices on rolling partitions for \$15,000 store for Mrs. E. B. Orr.

Kiehnel & Elliott, Archts., Seybold Bldg., Miami, Fla., want prices on following for dwelling:

Cast Stone
Electric Refrigerators
Flooring—hardwood, terrazzo, tile
Roofing—tile.

Bids Asked

Ammunition.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 16 for 5,000,000 rounds ammunition, delivery Philadelphia, Pa.

Bridge.—Hobucken, N. C. See Construction News—Bridges, Culverts, Viaducts.

Bridges, etc.—State of Texas. Bids for 5 bridges and overpass. See Construction News—Roads, Streets, Paving.

Bridges, etc.—State of Texas. Bids for 2 bridges, overpass and approaches. See Construction News—Bridges, Culverts, Viaducts.

Bridges.—State of Louisiana—Bids for 3 bridges. See Construction News—Roads, Streets, Paving.

Bulkhead Repairs.—U. S. Engr. Office, Norfolk, Va.—Bids Apr. 26 for furnishing and placing approx. 8400 short tons of riprap stone for repairing Craney Island bulkhead, Norfolk Harbor, Va.

Cafeteria Equipment.—Comms. Dist. of Columbia, Washington, D. C.—Bids April 16 for furnishing and installing cafeteria equipment at Washington vocational school.

Castings.—U. S. Engr. Office, Huntington, W. Va.—Bids Apr. 15 for steel and iron castings.

Cement (Portland).—Office of Director of Public Works, Richmond Va.—Bids Apr. 15 for furnishing and delivering 60,000 bbl. of portland cement.

Conductor Pipe, etc.—U. S. Engr. Office, Huntington, W. Va.—Bids April 8 for conductor pipe, etc.

Disposal Plant.—See Sewers.

Drill (Unbleached).—Marine Corps, Q. M. Dept., Washington, D. C.—Bids April 11 for furnishing 40,000 yd unbleached drill, delivery Philadelphia, Pa.

Elevator Repairs.—Supvr. Archt., Treas. Dept., Washington, D. C.—Bids April 17 for installing new gears, bearings, etc. in present elevator in U. S. P. O. and court-house, Jacksonville, Fla.

Elevators.—Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C.—Bids April 10 for 3 electric freight elevators at Air Station, Naval Operating Base, Hampton Roads.

Elevators.—Treasury Dept., Office of Supervising Archt., Washington, D. C.—Bids April 25 for furnishing and installing electric elevators and dumb-walters in U. S. Post Office, Memphis, Tenn.

Furniture.—Comms. Dist. of Columbia, Washington—Bids April 17 for furniture for District Training School.

Furniture.—Comms. Dist. of Columbia, Washington—Bids April 22 for furnishing and installing pupil's chairs, desk and tables in various public schools.

Gravel.—State of Louisiana. See Construction News—Roads, Streets, Paving.

Lumber.—O. M. Supply Dept., Washington, D. C.—Bids Apr. 22 for 200,000 ft. pine lumber.

Machine Shop Equipment.—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids April 9 for portable slotter and universal radial drill press; bids April 16 for motor driven drills, universal milling machine and spare parts, emery grinders and hack saws with spare carbon brushes, engine lathes and extension bed gap, pipe expanding and flanging machine, hack saw, keyseating machine, and carbon brushes.

Mattresses.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 15 for 5000 cotton felt mattresses, delivery Philadelphia, Pa.

Miscellaneous.—Panama Canal, A. L. Flint, Gen. Pur. Officer, Washington, D. C.—Bids Apr. 13 for following, Sch. 2479: Material for toilets (slate, trimmings and hardware),

coat hooks, soap dispensers, rate controllers, conc. mixers, ammonia receivers, metal life-boat, pipe fittings, wire cloth, etc.

Painting.—Supv. Archt., Treasury Dept., Washington, D. C.—Bids April 11 for painting postoffice at Douglas, Ga.

Paving, etc.—Miami, Fla. See Roads, Streets, Paving.

Paving, etc.—Glasgow, Ky. See Construction News—Roads, Streets, Paving.

Paving.—Muskogee, Okla. See Construction News—Roads, Streets, Paving.

Pipes, etc.—U. S. Engr. Office, Huntington, W. Va.—Bids April 8 for 500 ft. of 3-in. conductor pipe and 36 cutoffs; 11,100 ft. of wicket and trestle chains.

Pipe (Cast Iron).—See Sewers.

Pipe (Vitrified).—See Sewers.

Plumbing Supplies.—Depot of Supplies, Naval Operating Base, Hampton Roads, Va.—Bids April 8 for 500 ft. of steel pipe, welded; 1000 ft. of steel pipe, welded; bushings, coupling gate valves, brass compression faucets, 50 lbs. wiping solder, etc.

Post Office Lock Boxes and Drawers.—Panama Canal, A. L. Flint, Gen. Pur. Officer, Washington, D. C.—Bids April 15 for post office lock boxes and drawers: Sch. 2480.

Pumps.—U. S. Engr. Office, Memphis, Tenn.—Bids April 10 for dredging pumps.

Riprap.—U. S. Engr. Office, Norfolk, Va.—Bids April 26 for furnishing and placing 8400 short tons of riprap stone for repairing Craney Island Bulkhead, Norfolk Harbor, Va.

Reservoir.—See Water Works.

Road.—Baltimore, Md. See Construction News—Roads, Streets, Paving.

Road.—Towson, Md.—Bids for 2 roads. See Construction News—Roads, Streets, Paving.

Road Maintainers.—Charles E. Gross, County Auditor of Dallas County, Dallas, Tex.—Bids Apr. 11 for road maintainers.

Roads.—State of Texas—Bids for 2 roads. See Construction News—Roads, Streets, Paving.

Road.—Wharton, Tex. See Construction News—Roads, Streets, Paving.

Roads.—State of Texas. Bids for 5 roads. See Construction News—Roads, Streets, Paving.

Roads.—State of Tex.—Bids for 10 roads. See Construction News—Roads, Streets, Paving.

Roads.—Houston, Tex. Bids for 3 roads. See Construction News—Roads, Streets, Paving.

Roads.—State of Louisiana—Bids for 3 roads. See Construction News—Roads, Streets, Paving.

Sewers.—City Mgr., Harrodsburg, Ky.—Bids May 1 for constructing 4000 ft. of 18-in. vit. sewers and treatment plant; cost \$40,000; Pearce, Greeley & Hansen, Engrs., 6 N. Michigan Ave., Chicago, Ill.

Sewers.—City of Bardstown, Ky.—Bids April 29 for constructing 20,000 ft. of 8-in. to 12-in. sewer; Pearce, Greeley & Hansen, Engrs., 6 N. Michigan Ave., Chicago, Ill.

Sewers.—Town of Pineville, La., J. M. Rembert, Mayor—Bids April 9 for material and labor for completing sewer system; Swanson-McGraw, Inc., Balter Bldg., New Orleans.

Sewers.—Bd. of Awards, Baltimore, Md., Milton J. Ruark, Sewerage Engr.—Bids April 10 for building storm water drains south of Key Highway and McComas St. to bulkhead of McComas St. terminal in sewer Dist. No. 11. Storm Water Contr. No. 119; work includes 1200 cu. yds. earth excavation; 543 ft. of 54" diam. rein. conc. pipe drain; 243 cu. yds. conc.; 8400 ft. of timber piling; 17 vertical ft. of standard manholes.

Sewers.—Trustees of Georgia State Sanitarium, Milledgeville, Ga.—Bids April 18 for furnishing material and laying 8-in. sanitary sewer 1500 ft. long with 5 brick manholes along line, on grounds of Georgia State Sanitarium, according to plans and specifications at office of T. H. DeSaussure, Engr.

Sewers.—Bureau of Sanitary Engineering, Maryland State Dept. of Health, 2411 N. Charles St., Baltimore, Md.—Bids April 15 for sewers and sewage treatment plant at Camp Albert C. Ritchie, Cascade, Md.; plans and specifications on file at office of Ch. Engr., M. S. Dept. of H.; Benj. C. Gott, Major Q. M. C. U. S. Property and Disbursing Officer for Maryland.

Sewers.—Mayor and Bd. of Aldermen, Many, La.—Bids April 16 for sewerage system; work includes disposal and pumping plant, 28,000 ft. of 8-in. vit. sewer pipe with branches, tees, etc., or same quantity of conc. sewer pipe, tees, etc.; 2200 ft. of 8-in. c. i. pipe; trenching, backfilling and laying; manholes, lampholes, etc.; Swanson-McGraw, Inc., Const. Engrs., Balter Bldg., New Orleans.

Shell.—State of Louisiana. See Construction News—Roads, Streets, Paving.

Sidewalks.—Houston, Tex. See Construction News—Roads, Streets, Paving.

Sidewalks.—Natchez, Miss. See Construction News—Roads, Streets, Paving.

Storm Drains.—See Water Works.

Street.—Whitakers, N. C. See Construction News—Roads, Streets, Paving.

Street.—Clinton, Miss. See Construction News—Roads, Streets, Paving.

Street.—Paducah, Ky. See Construction News—Roads, Streets, Paving.

Street.—Columbia, Miss. See Construction News—Roads, Streets, Paving.

Street.—Franklin, Ky. See Construction News—Roads, Streets, Paving.

Streets.—San Antonio, Tex. See Construction News—Roads, Streets, Paving.

Timber.—U. S. Engr. Office, Huntington, W. Va.—Bids Apr. 11 for white oak timber, etc.

Tractor.—City Purchasing Agt., 211 Barnes Bldg., Muskogee, Okla.—Bids Apr. 8 for crawler type tractor, 30-h. p.

Truck Chassis.—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 15 for truck chassis, 2-ton, delivery Quantico, Va.

Water Works.—City of Montgomery, Ala., J. L. Cobbs, City Treas.—Bids April 23 for improvement to water work system, including construction of 4,000,000 gal. rein. conc. reservoir complete with pipe connections; furnishing and installing 3 enturi tubes and meters; constructing 20-in. suction loop in and about Court Street Pumping station; furnishing and installing approx. 300 ft. of storm drain and repairing existing culvert; J. W. Billingsley, Consult. Engr., Interstate Bank Bldg., New Orleans.

Cooper and Bessemer Combine.

A new company, the Cooper-Bessemer Corporation, representing a combination of the C. & G. Cooper Company, engine builder, Mt. Vernon, Ohio, and the Bessemer Gas Engine Company has been formed. E. J. Fithian, president of the Bessemer Company, will be chairman of the board and B. B. Williams, president of the Cooper Company, will be president and general manager of the new corporation. There will be practically no change in the personnel of the sales and service organizations. The C. & G. Cooper Company was established 96 years ago and the Bessemer Gas Engine Company was organized at Grove City, Pa., more than 30 years ago. The combined lines will now include standardized sizes of gas or Diesel engines and compressors ranging from 30 to 1500 horsepower..

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers, whether they are advertisers, or subscribers, or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Steel Joist Uses.

In order to standardize methods of designing and erecting steel joist floors, an association of steel joists manufacturers was formed about a year ago known as the Steel Joist Institute, with Frank Burton as consulting engineer. As a result, a standard specification has been prepared, covering the vital points of design, erection and use of steel joists, of value to architects, engineers and building officials. Copies of the specifications may be obtained from the Steel Joist Institute, 1736 Dime Bank Building, Detroit, Mich. The members of the Institute are: Bates Expanded Steel Truss Co., East Chicago, Ind.; Berger Manufacturing Company, Canton, Ohio; Concrete Steel Co., New York; Gabriel Steel Co., Detroit; Genfire Steel Company, Youngstown, Ohio; Ingalls Steel Products Co., Birmingham, Ala.; the Macomber Steel Co., Canton, Ohio; McClintic-Marshall Co., Philadelphia; Truscon Steel Co., Youngstown.

General Electric Report.

Earnings of the General Electric Company, Schenectady, N. Y., for 1928 amounted to \$54,153,806, the annual report of President Gerard Swope discloses, while orders received in 1928 were \$348,845,512, an increase of 13 per cent over 1927, and unfilled orders at the end of the year were \$72,953,000, an increase of 6 per cent. The surplus was \$8,313,000. The company's manufacturing plant investment had a cost value of \$205,631,890, but deducting \$158,075,079 of reserves, the net book value was \$47,556,811. The income from associated companies was 7½ per cent of the book value of investments in these companies and the International General Electric Company, which handles all export business, yielded a profit available for dividends of \$1,681,735. The average number of employees in 1928, not including those of associated companies, was 73,526 and approximately 58 per cent of these have served the company five years or more.

Dayton-Dowd Representative.

The Dayton-Dowd Company, centrifugal pumps, Quincy, Ill., announces the appointment of the Corken Pump & Machinery Company, Oklahoma City and Tulsa, as its Oklahoma district representative. The Oklahoma City office will be in charge of O. K. Corken and C. M. Corken and the Tulsa office in charge of W. H. Gransden.

Accident Prevention.

As the subject for the fourth number in its Industrial Safety series, the Metropolitan Life Insurance Company, New York, has taken "The Foreman's Part in Safety." The pamphlet is concise and interesting and potentially of great value. "The success of our accident prevention campaigns always has been and always will be chiefly dependent upon the support given them by the foremen," says Cyrus McCormick, Jr.

Texas Plant Works Day and Night.

During the past 90 days, according to officials of the company, the Lufkin Foundry & Machine Company plant at Lufkin, Tex., has been operating day and night shifts and Sundays in an effort to keep pace with the demand for worm gear units, and during the month of February established a new high mark for production and sales.

Reading Iron Appointments.

Conrad G. High, for 10 years with the Penn Planing Mill Company, Reading, Pa., has been appointed to the sales staff of the Reading Iron Company's Reading district sales office. A. C. Knight, formerly of the Oversole Rubber Corporation, New York, has been added to the selling staff of the Reading Iron New York office.

Joins Pulaski Foundry.

L. E. Gulliford, formerly general superintendent of the McMyler-Interstate Company, Cleveland, Ohio, has become associated with the Pulaski Foundry & Manufacturing Corporation, Pulaski, Va., as general manager. Mr. Gulliford has been engaged in the heavy machinery and construction industry for more than 25 years.

Hercules Motors Expansion.

For adequate production facilities for Hercules engines and power units, the Hercules Motors Corporation, Canton, Ohio, has completed a substantial addition to its plant and extensive additions to equipment. The company announces that it is turning out between 2500 and 3000 engines monthly.

Changes Office Address.

The executive offices of the American Institute of Steel Construction, Inc., are now located in the International Combustion Building, 200 Madison avenue, New York.

Contract for Switch Houses.

The Virginia Electric & Power Co., Richmond, recently awarded contract to the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., for four type B weatherproof outdoor switch houses, each for the control of a 13,200 volt, 3 phase, grounded neutral, 60 cycle circuit. Each switch house will be equipped with one type B-20 motor operated oil circuit breaker and two of them will contain indicating instruments, integrating watt hour meters and overload relays. Equipments for the other two will include relays for automatically transferring the load from a preferred line to an emergency line in case of failure of voltage on the preferred line.

Plant Equipment Sale.

Announcement is made that the Industrial Plants Corporation, New York, has been engaged to liquidate the entire assets of the Sykes Company, Logansport, Ind., manufacturer of metal doors and frames, steep stampings and cold drawn rolled metal mouldings, etc. The plant equipment includes large brakes and shears, large and small power presses, machine tools, dies, etc., a sale of which will be announced by the Industrial Plants Corporation.

National Kellastone Products.

Products practically new in the building line are offered by the National Kellastone Company, 155 East Superior street, Chicago, Ill., manufacturer of magnesite products. The nailing base tile is designed to eliminate the use of wood grounds where a wood or metal baseboard is used and to assure true and uniform grounds for the plasterer and to provide ample wire space for the running of conduits and electric wires of all kinds. Informative blueprints may be obtained from the company.

Missouri Pacific Minerals.

Clay and shale form the subject of a new pamphlet in a series by the Missouri Pacific Railroad describing mineral resources in its territory. Silica is treated in another pamphlet. The territory served by the Missouri Pacific is described as rich in mineral resources and detailed information on the subject in general or on any specific mineral can be obtained from the industrial development department of the road, St. Louis.

For Air and Light.

Cool air and light are the objectives attained by RA-TOX shades, manufactured by the Hough Shade Corporation, Chicago, which says that the shades keep out sun glare and heat, but admit from 30 to 40 per cent more light and air than customarily admitted by shades. The shades are made of wood strips, woven parallel, and are described as practically wear proof.

Order for Southern Rails.

Indication of industrial activity, especially in the South, is seen in the placing of an order for 10,000 tons of steel rails with the Tennessee Coal, Iron & Railroad Company, Birmingham, by the Southern Pacific Railroad. The rails will be of the 130-pound type, to be used in California and Oregon.

Installs Moore Kiln.

The Cleveland-Oconee Lumber Company has installed a new type high-powered Moore reversible cross-circulation fan kilns at its Gardners, Ga., plant. The Moore Dry Kiln Company has plants at Jacksonville, Fla., and North Portland, Ore.

Gets Bates Rights.

The Hunter Machinery Company, Milwaukee, Wis., with plants at Detroit and Grand Rapids, Mich., has the exclusive sales rights on Bates bar ties and tying tools for Michigan.

Trade Literature

Concrete Bridges.—The Portland Cement Association, Chicago, has published an attractive, illustrated booklet, "Concrete Bridges," for distribution among engineers, civic and town councils and chambers of commerce where bridge construction is under consideration. The Association further offers the benefit of the experience of its technical staff in problems having to do with the use of concrete.

Stokers.—The Combustion Engineering Corporation, New York, has issued a new catalog describing the C-E multiple retort underfeed stoker, super station type. The design of the C-E stoker has changed materially since the last catalog was issued, and these changes are covered in the text and illustrations of this new edition.

Instruments.—The Brown Instrument Company, pyrometers, thermometers, flow meters, indicating and recording instruments, Philadelphia, Pa., to emphasize the importance of economical management of steam production and consumption, has published a "Power Plant Instrument Data Book." Illustrations add to its value.

Stokers.—The Combustion Engineering Corporation, New York, has issued a catalog describing the type K underfeed stoker, applicable to boilers up to 200 horsepower. Its general design and the method of air distribution employed are planned to insure efficient combustion over a fairly wide range of boiler ratings.

Diesel Engines.—Type RH-75 Diesel engines of the Chicago Pneumatic Tool Company, New York, is described in bulletin 775 of that company, which covers the subject very thoroughly. The engine is of the vertical, four-cycle, high-compression, solid injection type, single-acting, with trunk type of piston.

Machinery.—The W. A. Jones Foundry & Machine Company, Chicago, Ill., speed reducers, cut gears, pulleys and general power transmission machinery, has issued a new general catalog, No. 42, the Jones Blue Book. It contains a listing of manufacture and practical working data of usefulness to purchasing agents, engineers or production men.

Graders.—Suggestion is offered by the J. D. Adams Company, Indianapolis, Ind., that persons interested in graders of various blade sizes, road drags, road plows and rooters, dump wagons, one-man power maintainer, blades and attachments for graders, obtain a copy of its new catalog, recently off the press.

Torches.—On completion of tests on a new Cyclone burner, the McCloskey Torch Company, Toledo, Ohio, has issued a leaflet on McCloskey Bomb Shell Torches, which it describes as leak proof, unbreakable, efficient, dependable and economical. The torch and new burner are said to be of especially heavy steel.

Buckets.—Originated in 1922, the Great Southern dragline bucket manufactured by the Southern Boiler & Tank Works, Memphis, and developed to present-day requirements, is described in a folder issued by that company. The bucket is made in capacities from three-quarters of a yard to six yards, inclusive.

Cranes.—Under the title, "Strength," a folder has been issued by the Buckeye Traction Ditcher Company, Findlay, Ohio, describing the Buckeye Utility crane. The hoist and drag drums, motor, fairlead for backfilling and dragline, rotating base and other features are shown in pictures, with clarifying text.

Steel Castings.—"Dependability in Steel Castings" is the title of an attractive and interesting booklet issued by the Sivyer Steel Casting Company, Milwaukee, Wis., designed to discuss briefly such factors as pattern, mold, metal, cleaning, heat treating and inspecting. Pictures, diagrams, tables and charts add to its value.

Book Reviews

The New Industrial Revolution and Wages. by W. Jett Lauck. New York; Funk & Wagnalls Company. Cloth. Pp. 308. \$2.50.

Two points in the introduction to this book will tend to encourage readers who have not always agreed with Mr. Lauck in his various public writings on economic questions: First, he gives credit to Mr. Hoover, as Secretary of Commerce, for virtually taking the initiative in the movement for the introduction and practice of new wage principles; second, he gives timely notice that labor will claim "a definite share in the increased productive efficiency of industry." One may infer that "labor," or that element known as "organized labor," will not rest content with the highest wages known in all times, but proposes to reach out for more. The welfare of the "white collar" man and woman, somehow, mighty seldom receives any consideration. The warning that labor is far from content will be of interest. And apparently in support of that inference Mr. Lauck quotes Harry F. Ward as citing the words of Paul, "The harvest man who labors in the field must be the first to get a share of the crop." Ward was chairman of the American Civil Liberties Union, of which a Joint Legislative Committee of the State of New York investigating seditious activities said: "The American Civil Liberties Union, in the last analysis, is a supporter of all subversive movements, and its propaganda is detrimental to the interests of the State. It attempts not only to protect crime, but to encourage attacks upon our institutions in every form." (Vol. II, page 1982.) Among others, the late Theodore Roosevelt and the late General Leonard Wood are quoted

in favor of "a living wage." The country has long since accepted the principle of even generous wages for so-called labor, both as a humanitarian policy and a sound economic practice. Mr. Lauck in this book professes to show how, "out of the World War we advanced toward Industrial Democracy," which aims, among other things, for "the recognition of industry as primarily an opportunity for service, rather than purely for profit."

Law Observance, edited by W. C. Durant, New York: Durant Award Office. Cloth. Pp. 565.

From W. C. Durant, donor of a prize of \$25,000 for "the best and most practicable plan to make the Eighteenth Amendment effective," comes a volume in the nature of a symposium embracing the views of many persons on the subject at issue. The most interesting feature of the book is the introduction by Mr. Durant, particularly if he be accepted by the reader—as, indeed, he should be—as a representative average citizen of the United States in decency, patriotism and mentality. One will agree with Mr. Durant in his conclusion: "Nevertheless, unless I am mistaken, the reader will come to no pessimistic conclusion when he lays the book aside. He will find that the men who know best about Prohibition enforcement are by no means discouraged. They believe in the need for the law. They see progress. They have learned from mistakes. They tell how these mistakes can be avoided. Only the uninformed can believe that there is any single 'plan' or panacea for the Prohibition problem. The solution lies rather in the assembled thought of the sincere and intelligent workers in the field, backed by the better element of the citizenry who want our laws observed." On the other hand, one hardly will agree unqualifiedly with Mr. Durant when he says that "these contributors are not theorists;" his assertion is too sweeping. At all events, in offering his prize, Mr. Durant performed a magnificent and patriotic service in awakening the people to law enforcement on many lines. It would be wrong to becloud this achievement by comment on the winning paper. Mr. Durant's volume is more than a symposium of individual views; it is a distinct stimulus to decency and patriotism through advocacy of all law observance and enforcement, at a time when such advocacy is sorely needed.

Plumbing Design, by A. L. Nugey. Easton, Pa.: The Chemical Publishing Company. Cloth. Pp. 351. \$6, postpaid.

Prepared as "a practical handbook for architects, designers, draftsmen, plumbers and students," this book at the same time is readable and interesting, while also the author speaks with that note of authority which a member of the American Society of Mechanical Engineers and the writer of previous professional books is entitled to utilize. In a preface Mr. Nugey avers that "the United States has transformed itself into the most sanitary nation throughout the entire world in only a comparatively short space of time," and this achievement he attributes to "national compulsory plumbing ordinances and the conservative planning of engineers specializing in this trade." The purpose of the book is to treat as comprehensively as possible the subject of plumbing, and this purpose is fully attained. Among the 248 illustrations are diagrams, designs, pictures of plumbing articles, specifications and other information of value. The author has made efforts to simplify and analyze the various problems, and has exercised care in the elimination of errors as far as possible.

HOSIERY CENSUS, 1927.

More Than 35 Per Cent of Country's Hosiery Mills in the South.

The total value of knit goods made in this country during 1927 increased only 0.8 per cent over that for 1925 as reported by the Bureau of the Census. This static condition was due to a balancing of increase in hosiery against a decrease in the products of other branches. The value of hosiery production increased 10.3 per cent, while other products decreased 8.9 per cent. The values are as follows: Hosiery: 1927, \$453,593,357; 1925, \$411,366,392. Other products: 1927, \$363,027,137; 1925, \$398,593,821.

Of the 672 establishments in 1927 which were engaged primarily in the knitting of hosiery, 277 were located in Pennsylvania, 117 in North Carolina, 51 in Tennessee, 26 in Georgia, 23 in New Jersey, 18 in Massachusetts, 18 in New York, 17 in Illinois, 16 in Wisconsin, 12 in New Hampshire, 12 in Virginia, 9 in Alabama, 9 in South Carolina, 8 in Michigan, 8 in Rhode Island, 6 in Kentucky, 6 in Maryland, 6 in Ohio, and the remaining 33 in 11 other states. The corresponding total for 1925 was 683, the decrease to 672 in 1927 being the net result of losses and gains. Of the establishments lost, some were idle throughout the year, some went out of business prior to 1927, and some reported other commodities as their principal products in 1927 and were therefore transferred to the appropriate industries.

In 1927 there were approximately 250 hosiery establishments in the Southern states; this was more than 35 per cent of the country's total. One of the outstanding incidents in the hosiery industry is the rapid development of full fashioned mills in the South.

\$13,567,000 Low Bid on Department of Commerce Building.

Washington, D. C.—The lowest bid on the general contract for the construction of the proposed \$17,000,000 building here for the Department of Commerce, was submitted by the Consolidated Engineering Co., of Baltimore, at \$13,567,000. As previously detailed, the building will be 7 stories and basement, to cover a ground area of approximately 274,000 square feet, and will be faced with stone. York & Sawyer, New York, are the architects. The Consolidated Engineering Co. was recently awarded contract at \$1,250,000 for the foundation of the structure and, in turn, awarded contract to the Baker Steel Co., Washington, for 800 tons of reinforcing steel and to the Raymond Concrete Pile Co., New York and Washington, for 12,000 piles.

Expect Carload Shipments to Increase.

Shippers of the country, through estimates of the Shippers Regional Advisory Boards, anticipate that carload shipments of the 29 principal commodities in April, May and June will be approximately 8,836,714 cars, an increase of 7.5 per cent over the corresponding period of 1928, the car service division of the American Railway Association says. The estimate by each regional advisory board as to what freight loadings by cars are anticipated for the 29 principal commodities in the second quarter this year include the following:

Board	1928	1929	Per cent of change
Atlantic States	916,705	942,840	2.9 increase
Southwest	515,445	546,964	6.1 increase
Southeast	998,894	989,162	1.0 decrease

It is estimated that increases in transportation requirements will be required as follows: All grain, flour, meal and other mill products; cotton, citrus fruits; other fresh fruits; other fresh vegetables; poultry and dairy products; coal and coke; ore and concentrates; salt; lumber and forest products;

petroleum and petroleum products; sugar, syrup and molasses; iron and steel; machinery and boilers; cement; brick and clay products; lime and plaster; agricultural implements and vehicles other than automobiles; automobiles, trucks and parts; paper, paperboard and prepared roofing and chemicals and explosives. Decrease is estimated for: Hay, straw and alfalfa; cottonseed and products, except oil; potatoes; live stock; gravel, sand and stone; fertilizers, and canned goods, which includes all canned food products.

SOUTHERN RAILWAY SYSTEM LAYING HEAVIER RAIL.

Contracts to Purchase 43,500 Tons.

The Southern Railway System in 1928 equipped 584 miles of track with heavier rail, according to information from the office of the vice-president at Atlanta, 370 miles being laid with new rail and 214 miles with relay rail. On locations where traffic is very heavy, 86 miles of track were laid with 130-pound rail—30 miles on the Cincinnati-Chattanooga line, 18 miles on the Washington division, 25 miles on the Asheville division and 13 miles on the Knoxville division. Rail of 100-pound section was laid on 241 miles of track, 227 miles with new rail and 14 miles with relay rail. New 85-pound rail was laid on 57 miles of track, and relay rail, for the most part of 85-pound section, was substituted for lighter rail on lines where operating conditions are not severe.

As recently announced, the Southern Railway has ordered 43,500 tons of rail for delivery during April, May and June, enough to lay 263 miles of track. The purchase includes 11,700 tons of 130-pound section, 28,800 tons of 100-pound section and 3000 tons of 85-pound section. Of the total, 28,800 tons were purchased from the Tennessee Coal, Iron & Railroad Co., Birmingham, Ala., to be rolled at the Ensley plant, near Birmingham; 12,700 tons from the Bethlehem Steel Co., Bethlehem, Pa., and 2000 tons from the Illinois Steel Co., Chicago.

Southern Tariff Meeting at Jackson, Miss.

Following recent meetings at Dallas and New Orleans, under the auspices of the Southern Tariff Association, advocates in the South of an American protective tariff will meet at Jackson, Miss., on April 13, on call by J. C. Holton, commissioner of agriculture and commerce in Mississippi. "While every Democrat at the New Orleans meeting took cognizance of the seemingly peculiar position of the Southerners demanding a protective tariff," said Commissioner Holton, "they simply were brought face to face with the facts and the cold business judgment that the Southern farmer, cotton oil operator, or any other of the innumerable industries affected, have every bit as much need of, and right to, protection as producers in any section of the Nation."

St. Louis Exposition Open May 11 to May 26.

Plans are being made for opening the St. Louis Exposition from May 11 to May 26, inclusive, according to Ben G. Brinkman, president of the National Exposition Company, organized to provide a permanent home for the National Dairy Show. The exposition will be held in the Highlands Arena, nearing completion, which has a show ring, 116 by 276 feet, with seating accommodations for 12,600. It will be a comprehensive showing of the industrial and commercial resources of St. Louis and the Middle West, in which aviation, refrigeration, illumination, radios and automobiles will be featured.

Sealed proposals will be received until April 9 by the Montgomery County Commissioners, Rockville, Md., for the purchase of \$475,000 4½ per cent school bonds, recently authorized by Act of the Legislature.

Railroads to Co-operate With Industry.

Constructive co-operation by the railroads of the South with industry in its manifold Southern phases, especially agriculture, was discussed and planned at the ninth annual meeting of the Railway Development Association of the Southeast, at Jacksonville. Officials of the extension departments of many roads were present and were unanimous in expressions of co-operation.

Among the points discussed were agricultural demonstrations, as put on by the railroads in many states, E. S. Center, Jr., of the Atlanta & West Point; W. F. Turner, Central of Georgia; R. H. Bryson, Mississippi Central; Felix Bachemin, Jr., New Orleans Great Northern; F. M. Connor, Seaboard Air Line, and Sam W. Westbrook, Louisville & Nashville, being among the speakers. Beef cattle as a new industry for the South was the subject for Dr. Milton P. Jarnagin of the Georgia State College of Agriculture, H. McDowell of Swift & Co., Moultrie, Ga., and W. E. French of the Georgia & Florida also speaking. Burdette G. Lewis, vice-president in charge of the Florida properties of the J. C. Penney-Gwinn Corporation; A. D. Robertson, Seaboard Air Line, and E. B. O'Kelley, Atlantic Coast Line, discussed "Essentials for Successful Land Settlement."

The opportunities in dairying in the South formed another subject for consideration, and tick eradication was strongly advocated.

Officers were elected as follows: Sam W. Westbrook, of Pensacola, agricultural agent for the Louisville and Nashville Railroad, president, succeeding J. N. McBride, of Savannah, general agricultural and land settlement agent, Seaboard Air Line Railway Co.; R. H. Bryson, of the Mississippi Central, senior vice-president; J. A. Winslow, Central of Georgia, immigration vice-president; E. B. O'Kelley, Atlantic Coast Line, agricultural vice-president; Carl B. James, Louisville and Nashville, industrial vice-president; F. H. Crotzer, Atlanta, who succeeds himself as secretary-treasurer.

"Signal Fires on the Mountains."

The Mountain School work of the Baptist Home Mission Board is set forth in an interesting booklet, "Signal Fires on the Mountains," by J. W. O'Hara, and published by the Sunday School Board of the Southern Baptist Convention, Nashville, Tenn., Dr. O'Hara being superintendent of the Mountain School department. At first describing the Southern mountaineers, whom he proclaims as "a people of the purest Anglo-Saxon blood," Dr. O'Hara tells of the realization by Dr. I. T. Tichenor, corresponding secretary of the Baptist Home Mission Board from 1882 to 1900, of the opportunities for great enlightening work among them. Largely as a result of his report, the Department of Mountain Schools and Missions was established in 1900 and since then 47 schools have been established, some being discontinued or merged, as conditions warranted. There are now 21 schools in the mountains of North Carolina, South Carolina, Georgia, Virginia, Tennessee, Kentucky, Alabama, Arkansas and Missouri.

Baltimore and New York Mortgage and Title Companies Merge.

Plans have been approved by the directors of the Maryland Mortgage and National Title Company, Baltimore, and the Mortgage-Bond Company, New York, for the consolidation of the two companies and stockholders will soon be requested to deposit their stock for exchange into stock of a new company to be known as the Mortgage-Bond and Title Corporation. The new organization, it is said, will have a combined capital and surplus between \$7,000,000 and \$8,000,000 and total resources of approximately \$45,000,000. George A. Hurd, president of the New York company, will be chairman of the board of the new corporation, and Robert G. Merrick,

president of the Baltimore company, will be president of the new one. Arthur Hurd, vice-president of the New York company, will become president of that organization and also of the Baltimore company, while George A. Hurd also will become chairman of the board of the Mortgage-Bond Company, and William E. Ferguson, at present chairman of the board of the Maryland Mortgage and National Title Company, will continue in that capacity.

The Baltimore company owns all stock of the Washington Consolidated Title Co., which in turn owns about 90 per cent of the stocks of the District, the Lawyers and the Washington Title companies of Washington. When all securities are converted into the capital issue of the new parent company, stock of the Washington Consolidated Title Co. will be turned over to the new holding company. The Maryland Mortgage and National Title Co. owns also all outstanding stock of the Baltimore Company, a realty organization operating in Baltimore and Washington, and as a part of the final consolidation the capitalization of this company will be increased to provide about \$300,000 additional working capital and permit the purchase the present office building and equipment of the Maryland Mortgage and National Title Co.

Contracts Awarded on Part of C. & O. \$18,500,000 Improvement Program.

Richmond, Va., March 30—[Special.]—Further contracts in connection with the general expansion program of improvements, extensions and betterments announced some time ago were awarded today by the Chesapeake and Ohio, according to W. J. Harahan, president. The entire program covers work at various points on the company's system and will cost approximately \$18,500,000, authority for the expenditure of which was granted by the Interstate Commerce Commission several months ago.

The awards just made are as follows:

At Clifton Forge, Va., a contract for new engine house and shop facilities to John W. Cowper Co., Inc., Richmond, Va., this being a part of the engine terminal improvements there which are to cost \$705,000.

At Hinton, W. Va., a contract for grading and masonry work to F. H. Clement & Co., Bethlehem, Pa., in the general project of extending four tracks in westbound yard, relocating main lines, extending switching lead and constructing light repair yards, estimated to cost \$847,200.

At Russell, Ky., a contract for grading and masonry work to Haley, Chisholm and Morris, Charlottesville, Va., in the general project of eastbound yard, engine underpass and run-around tracks, including changing the county road, the total cost of which is estimated to be \$1,433,000.

Other contracts, not a part of the \$18,500,000 expenditure, just announced are as follows:

To Boxley Bros. Co., Orange, Va., for converting the present railroad bridge over the Ohio River between Covington, Ky., and Cincinnati, O., into a highway bridge, this being a part of the Covington-Cincinnati improvement project costing approximately \$12,000,000.

To Reed and Laysley Co., Inc., South Charleston, W. Va., for grading and masonry work for connecting track between the Kanawha & West Virginia Railroad (New York Central), at Beech Glen, W. Va., and the Chesapeake and Ohio at Bryce, W. Va., including bridge over Gauley River, the total cost of the entire project estimated to be \$221,348.

\$1,000,000 Memphis Notes Sold to Local Bank.

Memphis, Tenn.—Short term notes in the amount of \$1,000,000 have been sold by the City of Memphis to the Union Planters Bank & Trust Co., Memphis, at \$1,000,025. The notes will bear an interest rate of 5½ per cent.

for Economical Transportation



The Chevrolet 1½ Ton Chassis with Cab equipped with Stake Body



A Six-Cylinder Truck with the Economy of the Four . . . Ideal for Manufacturers

Offering all the brilliant performance advantages of a great new six-cylinder valve-in-head engine—yet amazingly economical, both to own and to operate—the new Chevrolet trucks are meeting with unrivaled popularity among users in every line of business.

Never before has Chevrolet's leadership in quality and value been so decidedly pronounced. Six-cylinder performance—with its greater reserve power, higher speed, faster acceleration and smoother operation! Marvelous handling ease—the result of a full ball bearing steering mechanism, power-

ful 4-wheel brakes, and a positive, smooth-acting dry disc-clutch! Rugged dependability—assured by a heavy channel steel frame, massive banjo-type rear axle housing and scores of additional features of advanced design! And all available in the price range of the four.

See your Chevrolet dealer today.

He can provide you with a Chevrolet six-cylinder truck designed especially for your business that will combine dependable six-cylinder transportation with the outstanding economy of the four!

1½ Ton Chassis..	\$545
1½ Ton Chassis with Cab.....	\$650
Sedan Delivery...	\$595
Light Delivery Chassis.....	\$400
All prices f. o. b. factory Flint, Michigan	

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN

Division of General Motors Corporation

A SIX IN THE PRICE RANGE OF THE FOUR

FINANCIAL NEWS

Bond Issues Proposed

Ala., Tusculumbia—School—City, I. L. Hay, Clk., voted \$40,000 bonds. 3-21

Fla., Apalachicola—Franklin County Bd. of Public Instruction, A. S. Core, Supt., receives bids Apr. 8 for \$50,000, 6%, \$1,000 denom. Special Tax School Dist. No. 2 bonds. 3-21

Fla., Bonifay—Holmes County Bd. of Public Instruction, H. E. Majors, Supt., receives bids April 22 for \$40,000 5% \$500 denom. Special Tax School Dist. No. 7, and \$15,000 6% \$500 and \$1,000 denom. Special Tax School Dist. No. 8 bonds; rejected bids, opened Mar. 19. 3-14

Fla., Fort Pierce—City, J. W. Dunn, Clk., rejected bids for \$200,000 6% \$1000 denom. bonds; \$100,000, revolving fund; \$100,000, funding; will offer at private sale within next 60 days. 2-21

Fla., New Smyrna—New Smyrna School Dist., Volusia County, votes Apr. 19 on bonds. 3-21

Fla., Tallahassee—Leon County receives bids April 22 for \$410,000 5% bonds. 3-21

Fla., Tampa—City, W. A. Johnson, Clk., receives bids April 9 for \$600,000 Improvement Bond Sale Anticipation Notes; \$300,000, water works extension bond sale Anticipation Notes. 3-21

Ga., Waycross—Hospital—Ware County votes Apr. 30 on \$250,000 bonds. 3-21

Ga., Waycross—General Improvement—City, Walter E. Lee, Clk., votes April 30 on \$250,000 4½% \$1,000 denom. bonds. 3-21

Ky., Frankfort—Bridge—State Highway Comm. receives bids Apr. 23 for \$10,000,000 bridge bonds. 3-21

Louisiana—City, L. E. Thomas, Mayor, Shreveport, votes May 14 on \$1,500,000, 5% bonds to purchase flying field in Bossier Parish for third attack wing of army. 3-21

La., Bogalusa—City Comm. Council, probably call election May 21 on \$350,000 bonds; \$250,000, paving; \$100,000, school; may sell bonds in June or July; E. R. Cassidy, Mayor. 3-21

La., Many—Sewer—City, Bd. of Aldermen, J. H. McNeely, Sec., receives bids April 16 for \$50,000 6% bonds; voted bonds. 1-10

La., Monroe—City, Arnold Bernstein, Mayor, voted \$600,000 bonds; E. L. Neville, Supt. of Education. 1-31

La., Oak Grove—School—West Carroll Parish School Bd., R. A. Everett, Pres., receives bids Apr. 17 for \$75,000 6% \$1000 denom. Pioneer School Dist. No. 4 bonds. 3-21

La., Oak Grove—West Carroll Parish Police Jury, R. A. Skinner, Pres., receives bids Apr. 17 for \$78,000 6% \$1000 denom. bonds; \$28,000, Road Dist. No. 3; \$50,000, Road Dist. No. 7. 3-21

La., Shreveport—Airport—City, L. E. Thomas, Mayor, votes May 14 on \$300,000 bonds. 3-21

La., St. Joseph—Water—Town votes Apr. 18 on \$40,000 bonds; Swanson-McGraw, Engrs., Balter Bldg., New Orleans. 3-21

Maryland—Legislature passed bill authorizing \$4,000,000 bond issue for road construction; Governor Albert C. Ritchie, Annapolis, will advertise for bids for bond issue next month; John M. Dennis, State Treas. 3-14

Md., Baltimore—Legislature passed bill authorizing \$2,500,000 loan for proposed airport. 3-14

Md., Baltimore—Legislature passed bill authorizing \$1,500,000 for schools for education of physically disabled children, and \$2,000,000 bond issue for paving; Wm. F. Broening, Mayor. 3-14

Md., Chestertown—Town considering \$105,000 bond issue; \$80,000, street; \$25,000, sewage disposal plant. 3-14

Md., Salisbury—School—City votes May 21 on \$300,000 bonds; soon sell \$30,000 bonds. 3-14

Miss., Cleveland—Cleveland Consolidated School Dist. votes after Apr. 1 on \$150,000; probably sell bonds May 6. 3-14

Miss., Coldwater—Water—City voted \$25,000 bonds. 3-14

Miss., Ellisville—County Homes—Jones County Bd. of Suprs., W. L. Busby, Chancery, Clk., receives bids for \$80,000, not to exceed 6% bonds. 3-28

Miss., Ripley—Road—Tippah County, Districts 1, 2 and 4, plan \$200,000 bond issue. 3-28

Mo., Madison—Street—City plans \$10,000 bond election. 3-28

Mo., Maryville—School—City voted \$185,000 bonds; L. E. Ziegler, School Supt. 3-21

Okla., Oklahoma City—Consolidated School Dist. No. 2 voted \$30,000 bonds. 3-21

Okla., Olustee—Water—City votes Apr. 9 on \$24,000 bonds. 3-21

S. C., Columbia—Richmond County plans issuing \$275,000 road bonds. 3-21

S. C., Georgetown—City plans issuing \$75,000 funding bonds. 3-21

S. C., Greenville—Sewer—City considering \$100,000 bond issue, to be issued in \$10,000 blocks as needed. 3-21

S. C., Greenville—Greenville County Bd. of Suprs. soon sell \$150,000 Tuberculosis Hospital bonds. 3-21

S. C., Winnsboro—Legislature passed bill authorizing Fairfield County Bd. of Education, to issue \$28,540, not to exceed 6% indebtedness bonds for 10 School Districts. 3-21

Tenn., Chattanooga—Legislature considering \$1,193,000 bond issue to construct and improve schools in Hamilton County and in city. 3-21

Tenn., Nashville—State, Henry B. Horton, Jr., Governor, rejected bids for \$4,000,000 4½% bridge bonds. 3-21

Tenn., Alamo—Road—Senator J. B. Avery, introduced bill in Legislature for \$750,000 bond issue for Crockett County. 3-21

Tenn., Bruceton—Water, Sewer—City votes Apr. 11 on \$83,000 bonds. 3-14

Tenn., Chattanooga—Sewer—City, F. K. Rosamond, Treas., receives bids Apr. 9 for \$300,000 4½% \$1000 denom. Twelfth and Thirteenth Ward bonds. 3-14

Tenn., Dyersburg—Road—Dyer County voted \$1,000,000 bonds; L. L. Pace, Clk., County Court. 3-7

Tenn., Selmer—School—McNairy County Court considering \$121,000 bond issue; W. R. Nichies, Chmn. 3-7

Tex., Brownwood—Irrigation—Brow County Water Control and Improvement Dist. No. 1, J. R. Looney, plans selling \$2,500,000 bonds soon. 3-7

Tex., Center—City, T. D. Kimbro, Sec., votes soon on \$150,000 bonds; \$50,000, retire present indebtedness, \$45,000, waterworks and paving; \$30,000 fire station, \$25,000, sewer. 3-7

Tex., Crockett—Road—Houston County, Leroy L. Moore, Judge, plans bond election. 3-7

Tex., Floydada—Road—Houston County, Precinct No. 2 considering \$25,000 bond election. 3-7

Tex., Jasper—Road—Jasper County, Road Dist. No. 2, considering \$150,000 bond election. 3-7

Tenn., Paris—Henry County School Bd. will call election in May on \$90,000 bonds. 3-7

Tenn., Trezevant—School—Carroll County, Trezevant Dist., votes April 12 on \$60,000 bonds. 3-7

Tex., Beaumont—City, J. W. Anderson, Mgr., plans calling election about Apr. 30 for \$5,000,000 bonds; \$2,250,000, wharves and docks; \$2,750,000 for repairs and improvements to present facilities and acquisition of new facilities. 3-7

Tex., Beaumont—Jefferson County Commrs. Court call election first week in May, on \$5,500,000 improvement bonds, for bridge, boulevard, beach road, courthouse, etc. 3-28

Tex., Borger—School—Borger Independent School Dist. votes April 6 on \$200,000 bonds. 3-28

Tex., Boston—Road—Bowie County Commrs. Court receives bids April 15 for \$330,000 \$1,000 denom. not to exceed 5½% Road Dist. No. 6 bonds. 3-28

Tex., Canton—Van Zandt County Commrs. Court considering \$1,500,000 bond election. 3-28

Tex., Coleman—City Comm. considering bond issue for paving, and standpipe and filtration plant. 3-28

Tex., Eastland—Eastland Independent School Dist. voted \$75,000 bonds. 3-21

Tex., Groveton—Road—Trinity County plans selling bonds. 3-21

Tex., Lubbock—Airport—City votes April 23 on \$75,000 bonds. 3-21

Tex., Perryton—Paving—City voted \$48,000 bonds. 3-21

Tex., Raymondville—Willacy County Road Improvement Dist. No. 1, votes April 20 on \$400,000 bonds; A. B. Crane, County Judge. 3-21

Tex., Sulphur Springs—Road—Hopkins County considering \$610,000 bond election. 3-21

Tex., Waco—City, E. E. McAdams, Mgr., postponed sale of \$1,000,000 bonds for Bosque Dam. Lately noted bids Mar. 19. 2-21

Tex., Wharton—Wharton County, John Norris, County Judge, receives bids Apr. 8

for \$500,000, 5½%, \$1,000 denom. Road Dist. No. 4 bonds. 2-7

Va., Norfolk—City Council authorized \$17,600 4½% bond issue for curb, gutter and paving; I. Walke Truxton, Mgr. 2-7

Va., Richlands—School—Town votes April 22 on \$30,000 bonds. 2-7

W. Va., Huntington—Road—Cabell County Court considering \$300,000 bond election. 2-7

W. Va., Malden—Malden School Dist. votes April 23 on \$105,000 bonds for schools at Dana and Belle. 2-7

W. Va., Middlebourne—Road—Tyler County Court, J. E. Smith, Clk., calls election for Apr. 13 on \$200,000 McElroy Road Dist. bonds. 2-7

W. Va., Princeton—Sewage Disposal Plant—City Council plans calling election on or about July 1 on \$70,000 bonds; J. Paul Blundon, Engr. in charge, Kiser. 2-7

Bond Issues Sold

Arkansas—State, Ralph Koonce, State Treas., Little Rock, sold \$28,000,000 5% road and bridge bonds at par, and \$280 premium to syndicate including Lehman Bros., Chase Securities Corp., Equitable Trust Co., National Park Bank, Eldredge & Co., Kountze Bros., Bancamerica Corp., Stone & Webster & Blodgett, Inc., Kean, Taylor & Co., A. B. Leach & Co., Inc., J. B. Van Ingen & Co., Howe, Snow & Co., Inc., R. M. Schmidt & Co., H. L. Allen & Co., Pulley & Co., R. W. Pressprich & Co., all New York; Wm. R. Compton & Co., First National Co., Mississippi Valley Trust Co., Federal Commerce Trust Co., Kauffman, Smith & Co., Inc., G. H. Walker & Co., Stix & Co., all St. Louis, Mo.; Halsey, Stuart & Co., Inc., Ames Emerich & Co., Taylor, Ewart & Co., C. N. McNear & Co., all Chicago, Ill.; E. H. Rollins & Sons, Boston, Mass.; Stranahan, Harris & Oatis, Inc., Toledo, Ohio; Detroit Co. Guardian Detroit Co., both Detroit, Mich.; R. H. Moulton & Co., Los Angeles, Cal.; Wells, Dickey Co., Minneapolis, Minn.; Nicolaus & Co. 3-14

Ark., Rogers—City, J. H. Rood, Mayor, sold \$45,500 bonds to Farmers State Bank, Rogers, at 101.09; \$40,000, city hall, fire station, police headquarters site; \$5,500, park purchase and equipment. 3-7

Ky., Covington—Dewey, Bacon & Co., New York City, offering \$300,000, 4½% public improvement coupon bonds, recently sold. 3-7

La., Harrisonburg—Courthouse, Jail—Catahoula Parish Police Jury, J. K. McGee, Sec., sold \$150,000, 5%, \$1,000 denom. bonds to Harrisonburg-Catahoula State Bank, Harrisonburg, at par, accrued interest. 3-14

Miss., Jackson—City sold \$61,394 Special Street Improvement, and \$18,226 Street Intersection 5½% bonds to Merchants Bank and Trust Co., Jackson-State National Bank, and Mississippi Bond and Securities Co., all Jackson, at par, accrued interest. 3-7

N. C., Asheville—B. J. Van Ingen & Co., Inc., New York, and B. O. Gay & Co., Boston, Mass., offering \$950,000, 6% refunding notes, recently sold. 3-7

Okla., Fargo—Water—City sold \$20,000 bonds to Belle-Vurne Investment Co., Oklahoma City. 1-31

Okla., Mangum—First National Bank of Mangum purchased \$50,000 4½ and 5% Mangum School Dist. bonds. 3-7

S. C., Rock Hill—Water—City Council, W. P. Goodman, Mgr., sold \$300,000 bonds, jointly, to Peoples National Bank and National Union Bank, Rock Hill, par, and accrued interest. 3-7

Tenn., Knoxville—Knox County, S. O. Houston, County Judge, sold \$100,000 5% notes to V. L. Nicholson, Knoxville. 2-21

Tenn., Memphis—Revestment—City, D. C. Miller, Clk., sold \$1,000,000 5½% short term notes to Union Planters Bank & Trust Co., Memphis, \$1,000,025. 3-21

Tex., Abilene—Highway—Taylor County, Tom K. Eplen, County Judge, sold \$275,000 5% bonds to Roger H. Evans Co., Dallas, at par and accrued interest. 3-7

Tex., Galveston—Galveston County, I. Predecki, County Auditor, sold \$70,000 intracoastal canal bonds to United States National Bank of Galveston, par, accrued interest and \$84 premium. 2-28

Tex., Oklaunion—Oklaunion Independent School Dist., Cay Brite, Sec., sold \$55,000 5% \$1000 denom. bonds to Prudden & Co., Toledo, Ohio. 3-28

Tex., Wichita Falls—Wichita Falls County, (Continued on Page 134.)